Panasonic

Operating Instructions

Editing Controller

Model No. AG-A770-P

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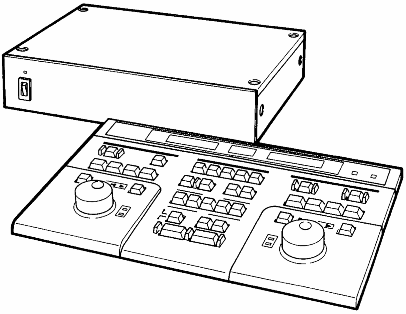
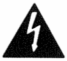


Before attempting to connect, operate or adjust this product,
please read these instructions completely.

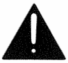
CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, REFER INSTALLATION OF THE INTERFACE BOARD TO QUALIFIED SERVICE PERSONNEL.

WARNING:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

USA ONLY
FCC NOTE:

This device complies with Part 15 of the FCC Rules. To assure continued compliance follow the attached installation instructions and do not make any unauthorized modifications.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CANADA ONLY
CAUTION:

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE SUPPLIED OR RECOMMENDED ACCESSORIES AND CABLES ONLY.

is the safety information.

Editing When the Equipment is Connected to a VTR

If the VTR is fitted with a control switch, set it to the "REMOTE" position.
When making edits, only operate the VTR through the Editing Controller.

Precautions for Use

Handling
Do not drop the unit or subject it to violent shock. Breakdowns and failures may occur if inflammable objects, water or metal pieces are inserted or find their way inside the unit.

Maintenance
Use a soft cloth to clean the cabinet. With stubborn dirt, dip the cloth into a diluted solution of kitchen detergent, wring it out well, wipe away the dirt and then wipe again with a dry cloth. Do not use thinners or benzine.
(Installation conditions)
In order to ensure that the unit will operate failure-free, do not place any objects on top of it.

Vibration
Avoid using the unit in a location where it will be exposed to strong vibrations.

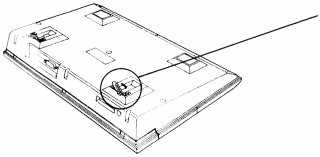
Temperature
Using the unit in locations where it is either extrmely hot or extremely cold and locations where the unit will be exposed to direct sunlight will cause its performance to deteriorate and should therefore be avoided at all costs.

Humidity
Generally, electrical products do not take kindly to humidity and moisture. Avoid installing the unit where there is a high degree of moisture and where the unit may be exposed to rain. If the unit is placed on a stand, ensure that the stand is sufficiently sturdy to support its weight.

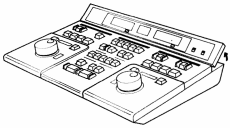
Storage
1. Avoid storing the unit where it will be exposed to extremely high or low temperatures.
2. Under no circumstances leave the unit outdoors.

If trouble or malfunctioning should occur:
Immediately set the power switches on the connected units to the OFF position and disconnect the power cords from the power outlets by pulling the plugs free. Then contact your dealer. Continued use without remedying what is wrong may increase the extent of the trouble or malfunctioning or cause unexpected accidents.

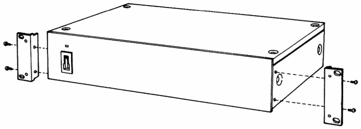
Setting the Equipment for Ease of Operation:
The angle position of the control panel can be varied with the adjustable feet on the bottom.


The angle can be adjusted by positioning the feet as desired.

For optimum viewing, the angle of the display panel can also be varied.


Adjust the angle

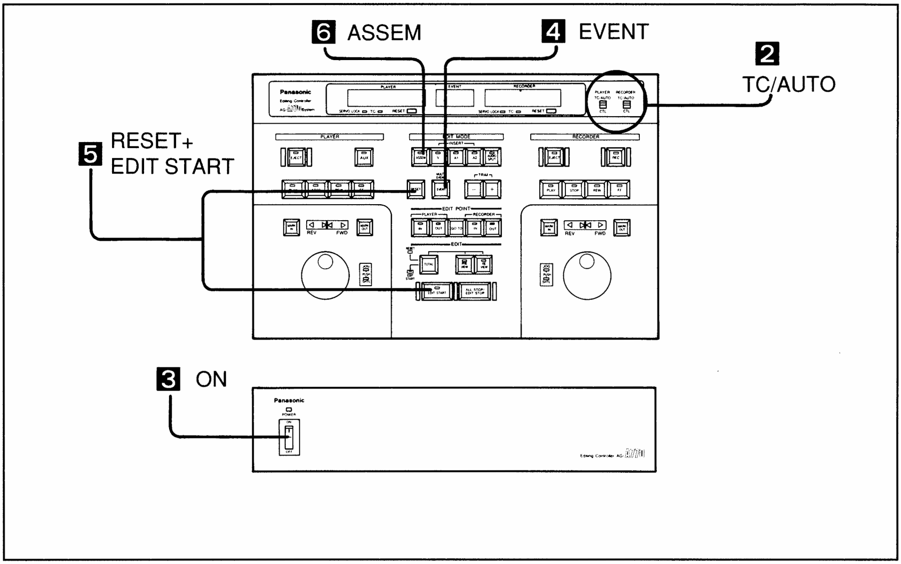
- **How to attach the Rack Mount Adaptor**
  Attach the rack mount adaptor firmly by using the cross-head screwdriver as follows:



Note:
When mounting this unit to the standard rack, remove the rubber foot located on the bottom of this unit.

BASIC OPERATIONS

Try out some of the basic operations described below.


6 ASSEM
4 EVENT
2 TC/AUTO
5 RESET+ EDIT START
3 ON
Panasonic
PLAYER
EVENT
RECORDER
EDIT MODE
INSERT
EJECT
AUX
ASSEM
V
A1
A2
REC
PLAY
STOP
REW
FF
RESET
TRIM
EDIT POINT
IN
OUT
GO TO
REV
FWD
EDIT
TOTAL
PREVIEW
REVIEW
EDIT START
ALL STOP EDIT STOP
POWER
OFF

1 Connect the signals. (See page 15~16)
Connect the titler, video camera or other signals to the AUX IN connector.

2 Set the TC/AUTO/CTL selector to TC/AUTO and insert a tape into the VTR.

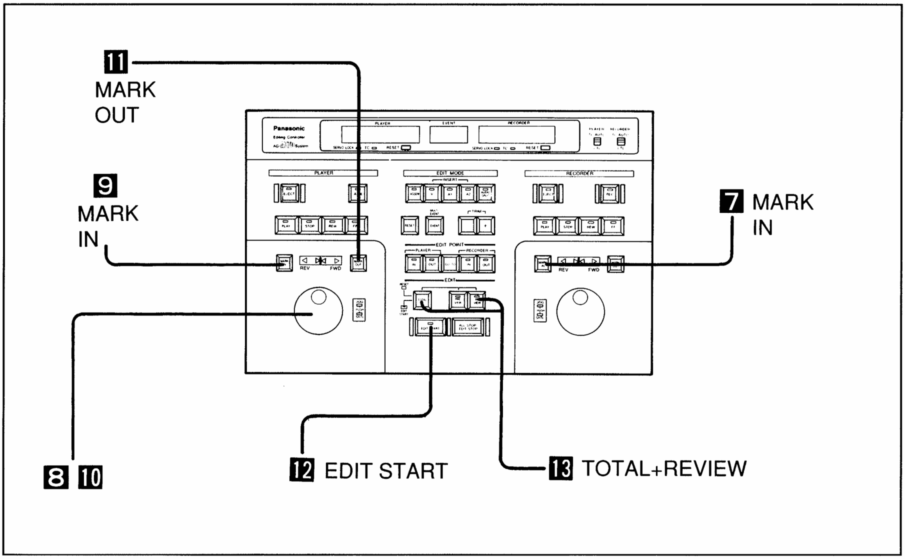
3 Turn on the power.

4 Press the EVENT button.

5 Press the EDIT START button while holding down the RESET button.
The recorder now automatically starts recording.

When the tape stops:

6 Press the ASSEM button.


11 MARK OUT
9 MARK IN
7 MARK IN
8 10
12 EDIT START
13 TOTAL+REVIEW
Panasonic
PLAYER
EVENT
RECORDER
EDIT MODE
INSERT
EDIT POINT
REV
FWD
EDIT

7 Press the recorder's MARK IN button.

8 Use the player's jog or shuttle function to move the tape.

9 Press the player's MARK IN button.

10 Use the player's jog or shuttle function to move the tape.

11 Press the player's MARK OUT button.

Repeat steps 8 to 11 .

12 Press the EDIT START button.
Editing now commences.

When editing is completed:

13 Press the REVIEW button while holding down the TOTAL button.
The recorder starts playing back what was edited.

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Features

Simple operation

The edit points can be entered simply by pressing a button once. In addition, the player/recorder 2-dial system further simplifies operation.

Time code editing

Editing operations using time codes can be performed by means of the 9-pin serial connector.

Multi event editing

When time codes are edited, up to 128 events can be edited automatically.

Continuous editing using auto tag function

This unit comes with an auto tag function which automatically enters the edit OUT (end) point as the next edit IN point. During multi event editing, it enables the player's IN and OUT points to be entered and edit points to be entered continuously without moving the recorder's OUT point. During single event editing, the VTR is placed in the pause mode at the edit OUT point upon completion of the editing so that it is ready to perform the same operations without further steps needing to be taken.

Audio split editing

When entering edit points during insert editing, this unit can perform audio split editing in which the video signals and audio signals can be edited separately.

Easy selection of title or other video signal on tape during editing

Titles and other video signal can be selected at any position on the tape during editing.

Tape ejection

Both the player and recorder operation panels come with eject buttons so that the cassette tape can be inserted or ejected by the controller when the VTR is controlled in the 9-pin remote mode.

AUX control connector

An AUX control connector is provided to output start pulses to the external units.

Accessories:

• 15P-15P cable	16ft
• Rack mount adaptors	2 (see page 3 for mounting)

Optional accessories

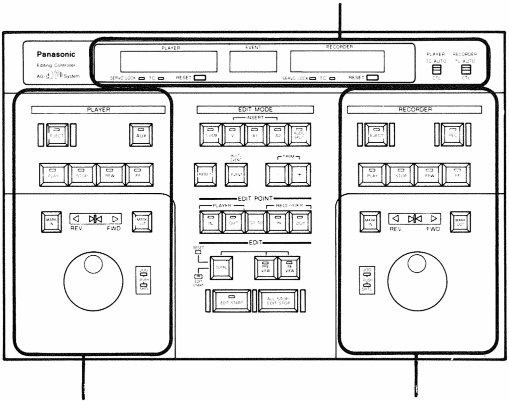
• 34P interface board	AG-IA81
• 9P cable	AU-C5 (16ft) AU-C10 (33ft) AU-C30 (100ft)

Controls and their Functions

When using buttons in combination, keep the first button depressed and then press the next button.
Example) TOTAL+EDIT START: These buttons start the editing of all events

This means keep the TOTAL button depressed and then press the EDIT START button.

Counter section


Panasonic
Editing Controller
PLAYER
EVENT
RECORDER
SERVO LOCK
TC
RESET
PLAYER
RECORDER
TC AUTO
CTL
PLAYER
EDIT MODE
INSERT
RECORDER
EJECT
AUX
V
A1
A2
AUDIO SPLIT
REC
PLAY
STOP
REW
FF
RESET
MULTI EVENT
EVENT
TRIM
EDIT POINT
PLAYER
RECORDER
MARK IN
REV
FWD
MARK OUT
IN
OUT
GO TO
EDIT
TOTAL
PRE VIEW
RE VIEW
EDIT START
ALL STOP EDIT STOP
JOG
PUSH
SHTL

Player operation panel

Recorder operation panel

Counter section

SERVO LOCK lamp
This lights when the VTR cylinder and capstan servo system are synchronized.

TC lamp
While this is lit, the display indicates the time code.

RESET button
This is the reset button for the control signal (CTL).
When the TC/AUTO/CTL selector switch is at CTL or when it is at TC/AUTO and the VTR has no time code board, the display is reset to zero and the entered data is cleared.

PLAYER display
This displays the player's edit points or the present tape position. When the TOTAL button is pressed, the error number is displayed.

Event display
This displays the number of the event during multi-event editing. Nothing appears during single-event editing.

RECORDER display
This displays the recorder's edit points or the present tape position. When the TOTAL button is pressed, the total editing time is displayed. (See page 41.)

TC/AUTO/CTL selector switch
TC/AUTO: When the VTR contains a time code generator, the TC lamp lights and the time code appears on the counter; when it does not have such a facility, CTL is indicated on the display.
CTL: This forcibly displays the control (CTL) signal.

Player/ recorder operation panels

EJECT button
When this is pressed while control is being exercised in the 9-pin control mode, the cassette tape is ejected.

AUX button (player side only)
When this is pressed and its lamp is lit, external signals can be input.
While the REC button on the recorder's panel is pressed, input video signals are output to the TV monitor.
However, this requires that signals be connected to the AUX IN connector on the rear panel. (See page 51.)

REC button (recorder side only)
Recording starts when this button is pressed together with the PLAY button. When it is pressed during a still picture, playback or search operation, the input picture appears on the recorder's TV monitor.

PLAY button
Press this to playback a pre-recorded tape.

STOP button
Press this to stop the tape traveling and establish the pause mode. When it is pressed during editing, editing is stopped immediately.

REW button
Press this to rewind the tape.

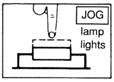
FF button
Press this to fast forward the tape.

MARK IN button
When this is pressed, the edit IN point is entered and the IN lamp lights.

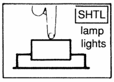
MARK OUT button
When this is pressed, the edit OUT point is entered and the OUT lamp lights.

Search dial
This is used to locate edit points or other pictures required. When the dial is pressed, the mode is alternated between jog and shuttle.

- Jog mode: The jog mode is established if the JOG lamp is lit. The speed at which the dial is turned produces a corresponding change in the speed of the playback pictures from still pictures to normal playback in the forward or reverse direction.



- Shuttle mode: The shuttle mode is established if the SHTL lamp is lit. Changing the position of the dial produces a corresponding change in the speed at which the pictures are played back up to approximately 32 times the normal playback speed. The tape speed is limited by the VTR which is connected. (The maximum speed is approx. ×32 when the AU-65/63, AG-7750 or 7650 is used, and a maximum speed of approx. ×10 when the AG-7500/AG-7500A/AG-6500 is used.)

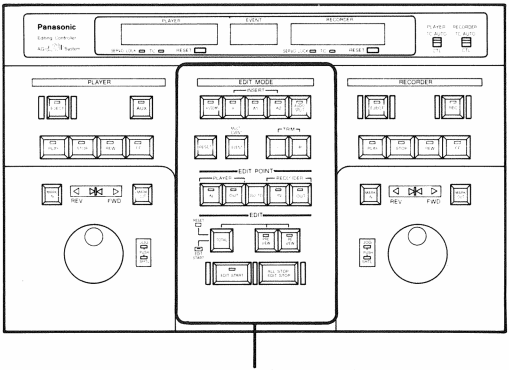


SEARCH indicator
This indicates the direction in which the tape is controlled by the search dial: forward (▶), reverse (◀), still (▶■◀).

JOG lamp
This lights when the jog mode is established.

SHTL lamp
This lights when the shuttle mode is established.

Controls and their Functions



Editing operation panel

Editing operation panel

ASSEM button

The lamp in this button lights when the button is pressed while the lamp is flashing, and the assemble editing mode is established. When the button is pressed again, the lamp reverts to flashing, and the assemble editing mode is canceled.

V, A1, A2 buttons

The lamp in any of these buttons lights when the corresponding button is pressed while the lamp is flashing, and the insert editing mode is established. The lamps flash when they are all set off, and the insert editing mode is canceled.

V: Video signal selection mode.
A1: Audio CH1 signal selection mode.
A2: Audio CH2 signal selection mode.

AUDIO SPLIT button

During insert editing, use this to shift the edit points for the sound alone away from those for the video signals. IN and OUT points can be entered separately.

If the button is pressed and its lamp is flashing, an audio split editing point can be entered.

If its lamp is lit, this indicates that the edit point for audio split editing has already been entered.

RESET button

The operations below are performed when this button is used in combination with other buttons.

1) **EVENT+RESET:** For clearing the edit points of the event number indicated on the display.
2) **TOTAL+RESET:** For clearing all the edit points. The ASSEM, V, A1 and A2 lamps flash. The multi event editing mode is replaced by the single event editing mode.
3) **IN (or OUT)+RESET:** For clearing an edit IN (or OUT) point.

EVENT (MULTI EVENT) button

Press this to establish the multi event editing mode. Up to 128 events can be entered. Event number indicated on the event display can be changed by pressing this button together with a TRIM (+ or –) button.

TRIM (+, –) buttons

These are used when changing edit points or event numbers.

The operations below are performed when this button is used in combination with other buttons.

1) **EVENT + TRIM (+, –):** For changing event numbers.
2) **IN (or OUT) + TRIM (+, –):** For changing edit points.

Editing operation panel

IN button

When this is pressed while its lamp is lit, the entered edit IN point appears on the display.
The operations below are performed when this button is used in combination with other buttons.

1) **RESET+IN:** For clearing the entry of an edit IN point.
2) **GO TO+IN:** For checking an edit IN point picture.
3) **IN+OUT:** For checking the duration.

OUT button

When this is pressed while its lamp is lit, the entered edit OUT point appears on the display.
The operations below are performed when this button is used in combination with other buttons.

1) **RESET+OUT:** For clearing the entry of an edit OUT point.
2) **GO TO+OUT:** For checking an edit OUT point picture.
3) **IN+OUT:** For checking the duration.

GO TO button

When this is pressed together with the IN (or OUT) button, the tape can be accessed at the edit IN (or OUT) point, and the picture can be checked.

TOTAL button

When only this button is pressed, the following details are displayed.

1) The edit time of all the edit sections is indicated on the recorder display.
2) Error codes are indicated on the player display. (See page 60.)

The operations below are performed when this button is used in combination with other buttons.

1) **TOTAL+RESET:** For clearing all the edit points. The ASSEM, V, A1 and A2 lamps flash. The multi event editing mode is replaced by single event editing.
2) **TOTAL+PREVIEW:** For previewing all events (valid only for insert editing).
3) **TOTAL+EDIT START:** For editing all events.
4) **TOTAL+REVIEW:** For reviewing all events.

PREVIEW button

This is the button used for rehearsing editing.
When it is pressed, the same operation as editing is performed only for the event displayed. However, there is no recording on tape.
The operation below is performed when this button is used in combination with another button.
TOTAL+PREVIEW: For previewing all events (valid only for insert editing).

REVIEW button

When this is pressed, the edited tape can be reviewed.
The operation below is performed when this button is used in combination with another button.
TOTAL+REVIEW: For reviewing all events.

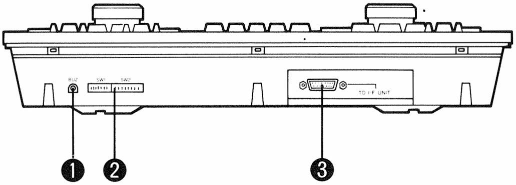
EDIT START button

Editing is performed when this button alone is pressed. When it is pressed during multi event editing, all the events awaiting editing are edited.
The operation below is performed when this button is used in combination with another button.
TOTAL+EDIT START: For editing all events.

ALL STOP/EDIT STOP button

Press this to stop the VTR.
When it is pressed during editing, editing is stopped immediately if the single event mode is established.
When it is pressed once in the multi event mode, editing is stopped after the event concerned has been edited. When it is pressed twice, editing is stopped immediately.

Controls and their Functions

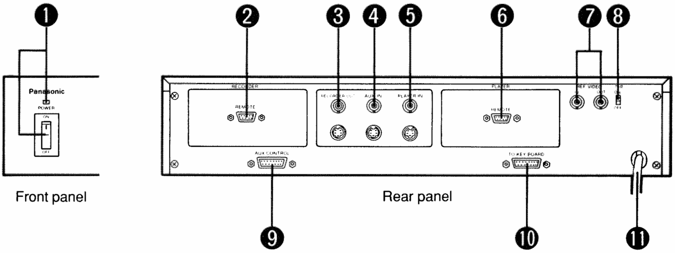


Control panel

(1) **Buzzer volume**
This is used to adjust the volume of the buzzer.

(2) **DIP switches**
Refer to page 55 for details.

(3) **TO I/F UNIT connector (15-pin)**
Connect this to the TO KEY BOARD connector in the I/F unit section of the AG-A770.



Front panel

Rear panel

I/F unit section

(1) **Power switch/lamp**

(2) **Recorder slot**

This slot accommodates the 9-pin or 34-pin interface board (option). It is connected to the recorder's remote control connector.

(3) **RECORDER OUT connectors (BNC/S-VIDEO)***

These output the video signals to the recorder. They come in two types: BNC and S-VIDEO (YC).

(4) **AUX IN connectors (BNC/S-VIDEO)***

These supply the signals from the video titler or video camera etc.
They come in two types: BNC and S-VIDEO (YC).

(5) **PLAYER IN connectors (BNC/S-VIDEO)***

These supply the player's video signals. They come in two types: BNC and S-VIDEO (YC).

(6) **Player slot**

This slot accommodates the 9-pin or 34-pin interface board (option). It is connected to the player's remote control connector.

(7) **REF VIDEO IN/OUT (reference video input/output) connectors (BNC)**

These are used to supply the sync (reference) video signals and control the entire system with the same synchronization. The reference video signal must be connected for this.

(8) **75-ohm termination switch**

Set this to ON when terminating the sync video signal at this unit.

(9) **AUX (external) CONTROL connector (15-pin)**

Connect this to an external component. It can output start pulses to an external destination.
For further details, see page 57.

(10) **TO KEY BOARD connector (15-pin)**

Connect this to the TO I/F UNIT connector on the AG-A770's control panel.

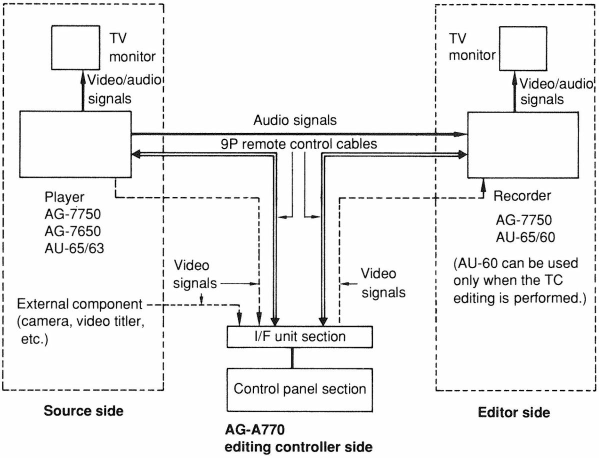
(11) **Power cord**

NOTE: Use the same type of connector (BNC or S-VIDEO) when connecting to the PLAYER IN, AUX IN or RECORDER OUT connectors. Both the BNC and S-VIDEO connectors cannot be used at the same time.

Editing system combinations

• Basic Editing System

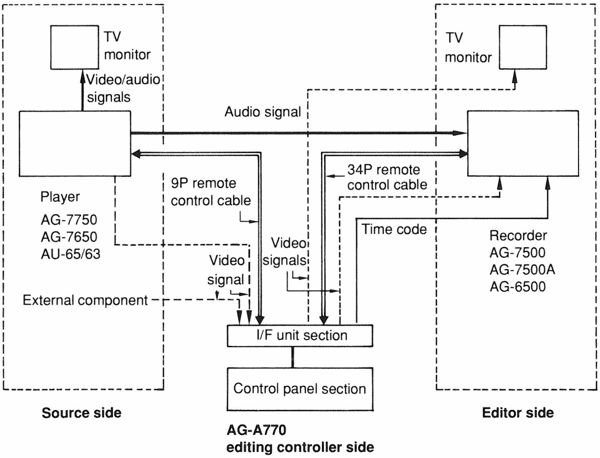
In the basic system, a playback VTR serving as the player and external component are connected to a recording VTR serving as the recorder.
If either the AG-7750/7650 or AU-65/63 is connected, it can be controlled using 9-pin serial remote control cables.



TV monitor
Video/audio signals
Audio signals
9P remote control cables
TV monitor
Video/audio signals
Player
AG-7750
AG-7650
AU-65/63
Recorder
AG-7750
AU-65/60
(AU-60 can be used only when the TC editing is performed.)
Video signals
Video signals
External component (camera, video titler, etc.)
I/F unit section
Control panel section
Source side
Editor side
AG-A770 editing controller side

• Conditional Editing System

When the AG-7500/AG-7500A/AG-6500 is connected in this system, the optional AG-IA81 34-pin interface board is required.

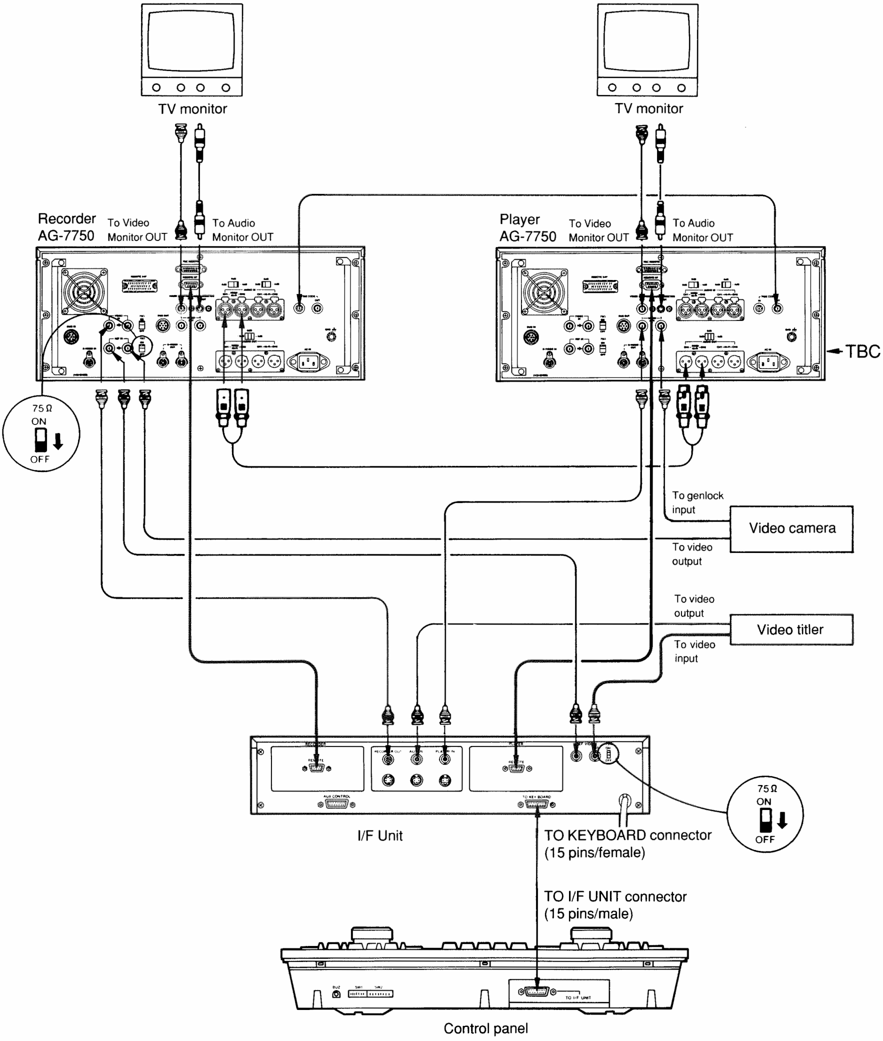


TV monitor
Video/audio signals
TV monitor
Audio signal
34P remote control cable
Player
AG-7750
AG-7650
AU-65/63
9P remote control cable
Time code
Video signals
Video signal
Recorder
AG-7500
AG-7500A
AG-6500
External component
I/F unit section
Control panel section
Source side
Editor side
AG-A770 editing controller side

NOTES:

1) Supply reference video signals when using the same signals to synchronize the entire system. (See page 15.)
2) It is recommended that a VTR with a built-in TBC or a discrete time base corrector is connected to the source side if editing is to be assured of a high picture quality.

Connections


TV monitor
TV monitor
Recorder
AG-7750
To Video
Monitor OUT
To Audio
Monitor OUT
Player
AG-7750
To Video
Monitor OUT
To Audio
Monitor OUT
TBC
75Ω
ON
OFF
To genlock
input
Video camera
To video
output
To video
output
Video titler
To video
input
I/F Unit
TO KEYBOARD connector
(15 pins/female)
75Ω
ON
OFF
TO I/F UNIT connector
(15 pins/male)
Control panel

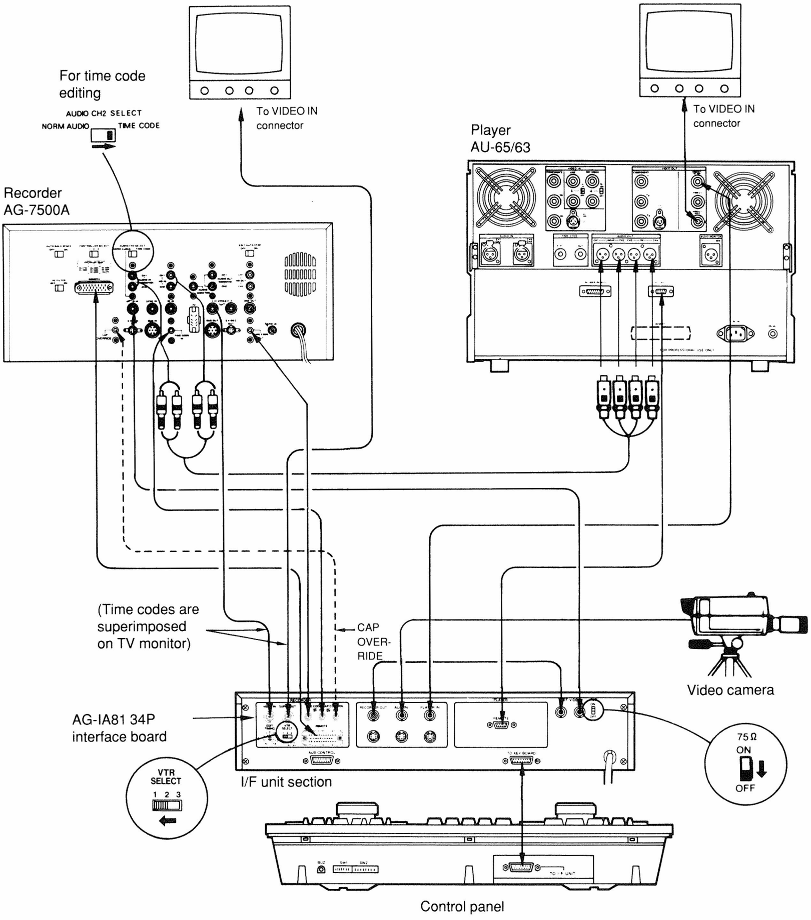
NOTES:

1) When the player does not have a TBC or TBC is not connected, use a sync signal generator to synchronize it with the whole system.
2) If a sync signal generator is not used, connect signals which are synchronized to the recorder's video input signals to the respective units.

Connections

• When using the optional AG-IA81 34P interface board

The AG-IA81 is an interface board for the 34-pin remote controller. Use it when connecting a VTR equipped with a 34-pin REMOTE connector. The AG-IA81 comes with a built-in time code generator/reader to enable time code editing.


For time code editing
AUDIO CH2 SELECT
NORM AUDIO
TIME CODE
To VIDEO IN connector
To VIDEO IN connector
Player AU-65/63
Recorder AG-7500A
(Time codes are superimposed on TV monitor)
CAP OVER-RIDE
AG-IA81 34P interface board
VTR SELECT
1 2 3
I/F unit section
Video camera
75Ω
ON
OFF
Control panel

Precautions for time code editing

- The time code signal is recorded on the normal audio CH2 track which means that audio signals cannot be recorded on this track as well.
- When using the time code signals for editing operations, be sure to supply the video signal from the VIDEO IN connector on the 34P interface board.

Precautions for phase-synchronized editing

- Connect the recorder's CAP OVERRIDE connector with this unit when conducting phase-synchronized editing. This will minimize failures in the phase synchronization during editing. In this case, set DIP switch SW1-4 on the rear panel of the control section. (See page 55.)

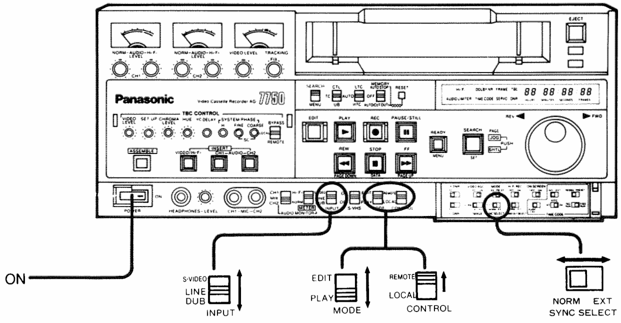
Switch settings

VTR side

The switches are set differently depending on the type of VTR connected.

When the AG-7750 or AG-7650 is connected

- Switch on the power.
- Set the CONTROL switch to REMOTE.
- Set the SYNC SELECT switch to NORMAL for synchronization with the input video signal. (In this case, the editing accuracy may be impaired due to the time taken for servo lock.)
  Set the SYNC SELECT switch to EXT when supplying an external reference signal.
- Set the MODE switch to EDIT on the recorder and to PLAY on the player.
- Set the INPUT switch on the recorder to the position corresponding to the input signals.
- Set No.1001 (STILL TIME SELECT) on the dial menu to "03 (5MIN)".
- Set No.1002 (TAPE PROTECTION) on the dial menu to "00 (READY OFF)".
- Set No.1003 (READY OFF MODE SELECT) on the dial menu to "00 (DRUM ROTATE)".
- Set No.3002 (9P DEVICE TYPE SELECT) on the dial menu to "S-VHS ID".
- Set No.3003 (REMOTE OPERATION) on the dial menu to "9P".



(Recorder only)

(EDIT for recorder,
PLAY for player)

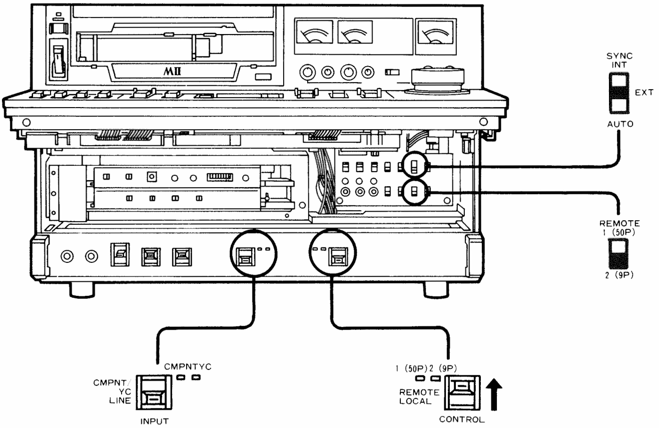
Follow the steps below to change the dial menus.

1. Set the CONTROL switch to LOCAL.
2. Set the search dial mode switch to MENU.
3. Press the READY (MENU) button.
4. Turn the search dial in the jog mode and press the STOP (DATA) button when the flashing display reaches set-up menu No.1001.
5. Turn the search dial while holding down the STOP (DATA) button and set the flashing display to "03 (5MIN)".
6. Press the STOP (DATA) button.
7. Similarly, set the flashing displays of set-up menus No.1002, 1003, 3002 and 3003 to "00 (READY OFF)", "00 (DRUM ROTATE)", "01 (S-VHS ID)" and "00 (9P)", respectively.
8. Press the SEARCH (SET) button.
9. Set the search dial mode switch to SEARCH.
10. Set the CONTROL switch to REMOTE.

Switch settings

When the MII (AU-65/63) is connected

- Switch on the power.
- Set the CONTROL switch to REMOTE.
- Set the REMOTE switch on the front sub panel to "2 (9P)".
- Set the SYNC switch on the control sub panel to AUTO for synchronization with the input video signal. (In this case, the editing accuracy may be impaired due to the time taken for servo lock.)
  When supplying an external reference signal, set the SYNC switch to AUTO or EXT.
- Set No.1001 (STILL TIME SELECT) on the dial menu to "07 (10MIN)".
- Set No.1002 (TAPE PROTECTION SEL) on the dial menu to "00 (T.RELEASE)".
- Set No.3004 (9P DEVICE TYPE SELECT) on the dial menu to "02 (M2 ID)".
- Set the INPUT switch on the recorder to the position corresponding to the input signals.



Follow the steps below to change the dial menus.

1. Set the CONTROL switch to LOCAL.

2. Press the MENU button of the B1.SYSTEM CONTROL circuit board in the front sub panel. The menu screen now appears on the TV monitor.

3. Turn the search dial, move the flashing display, and press the STOP button when set-up menu No.1001 (STILL TIME SELECT) flashes.

4. Turn the search dial while holding down the STOP button and make "07 (10MIN)" flash.

5. Release the STOP button.

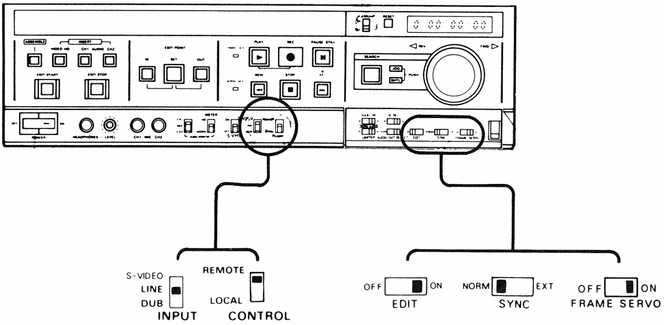
6. Similarly, set the flashing displays of set-up menus No.1002 and 3004 to "00 (T.RELEASE)" and "02 (M2 ID)".

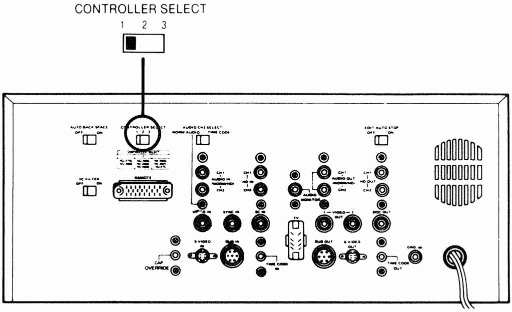
7. Press the SET button of the B1.SYSTEM CONTROL circuit board in the front sub panel.

8. Set the CONTROL switch to REMOTE.

When the AG-7500/AG-7500A/AG-6500 is connected

- Switch on the power.
- Set the CONTROL switch to REMOTE.
- Set the EDIT switch to ON.
- Set the rear panel CONTROLLER SELECT switch to “1”.
- Set the SYNC switch to NORMAL for synchronization with the input video signal.
  Set the SYNC switch to EXT when supplying the reference signal or connecting the TBC.
- Set the FRAME SERVO switch to ON.
- Set the INPUT switch to the position corresponding to the input signals when the AG-7500/AG-7500A/AG-6500 is used as the recorder.


S-VIDEO
LINE
DUB
INPUT
REMOTE
LOCAL
CONTROL
OFF
ON
EDIT
NORM
EXT
SYNC
OFF
ON
FRAME SERVO


CONTROLLER SELECT
1 2 3

Switch settings

Main unit side

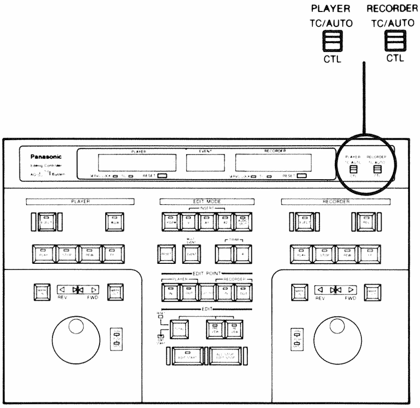
- Switch on the power.
- Set the TC/AUTO/CTL selector position.

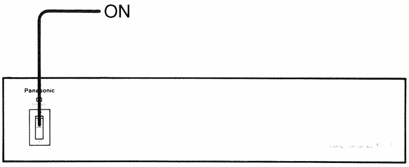
  Normally, this is set to TC/AUTO.

  Be sure to set it to TC/AUTO and that the time code generator is equipped with the VTR for multi event editing.

  Do not change the position of this switch while recording edit points during multi event editing.

  Be sure to remember to change the position before recording the edit points.


PLAYER
RECORDER
TC/AUTO
TC/AUTO
CTL
CTL
Panasonic
PLAYER
EDIT MODE
RECORDER
EDIT POINT
EDIT
REV
FWD
REV
FWD


ON
Panasonic

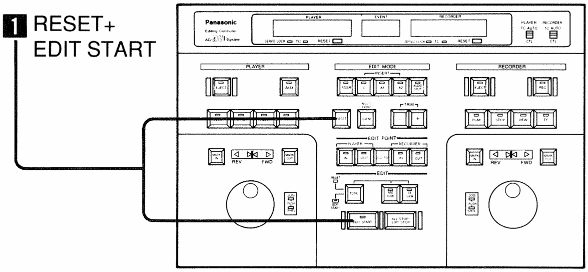
NOTE: Bear in mind that errors will occur in the editing if editing operations are performed when the VTR used does not come with a time code function even if the TC/AUTO/CTL selector is at the TC/AUTO position or, alternatively, when the switch is set to the CTL position.

First editing (Recording of black burst or color bar signals, etc.)

The reference signal can be recorded automatically to enable regular prerolling to the part before the edit IN point when proceeding with assemble editing on a tape, such as a new tape, on which the reference (black burst) signal has not been recorded, or on a tape which is to be re-edited from the start.

PREPARA-TIONS

1) Supply a composite video signal (black burst or color bar) to the AUX IN connector of this unit.
2) Load the tape into the recorder.


1 RESET+
EDIT START
Panasonic
PLAYER
EVENT
RECORDER
EDIT MODE
INSERT
TRIM
EDIT POINT
EDIT
REV
FWD

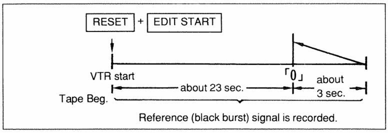
OPERA-TION

1

Press the EDIT START button while the RESET button is kept depressed.
The event number will be reset to zero and first editing is commenced.

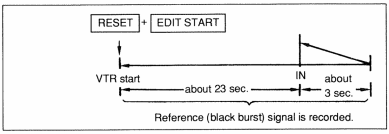
● **When using a new tape**

The recorder rewinds the tape to its beginning. The time code generator is automatically set to about –23 seconds, and the recorder proceeds to record the video signals supplied. The recorder continues recording for an extra 3 seconds or so, returns automatically to 0 sec. and then stops.


RESET + EDIT START
VTR start
Tape Beg.
about 23 sec.
0
about 3 sec.
Reference (black burst) signal is recorded.

● **When the edit IN point is entered on the recorder tape**

The time code generator sets to about –23 seconds before the IN point, and the recorder starts to record the video signals supplied. After recording for about 3 seconds past the IN point, the recorder returns to the IN point and it stops.


RESET + EDIT START
VTR start
about 23 sec.
IN
about 3 sec.
Reference (black burst) signal is recorded.

NOTES:

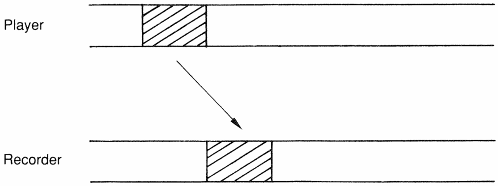
1) When insert editing is to be performed, the color bar or black burst signal must be recorded in advance on the part of the tape required for editing in the recorder.
2) First edit material cannot be recorded in the drop frame (DF) mode. Be sure to do this in the non-drop frame (NDF) mode.

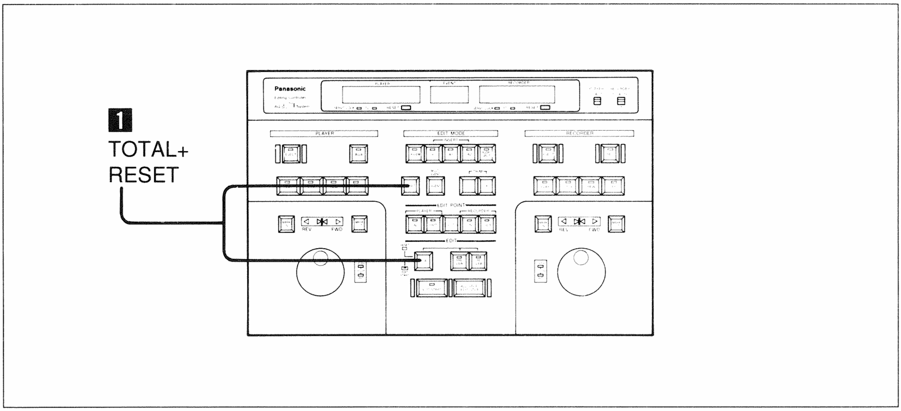
Events

Editing units are called "events". Each event is differentiated by the event number.
Events include single event and multi events.

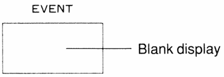
Single event

"Single event" refers to a method of editing which is on a cut by cut basis. Once a single cut has been edited, the editing operation is completed.
Continuous automatic editing, as with multi event editing, is not possible.


Player
Recorder

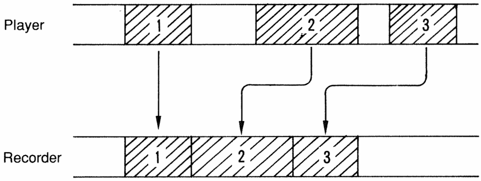

1
TOTAL+
RESET
Panasonic

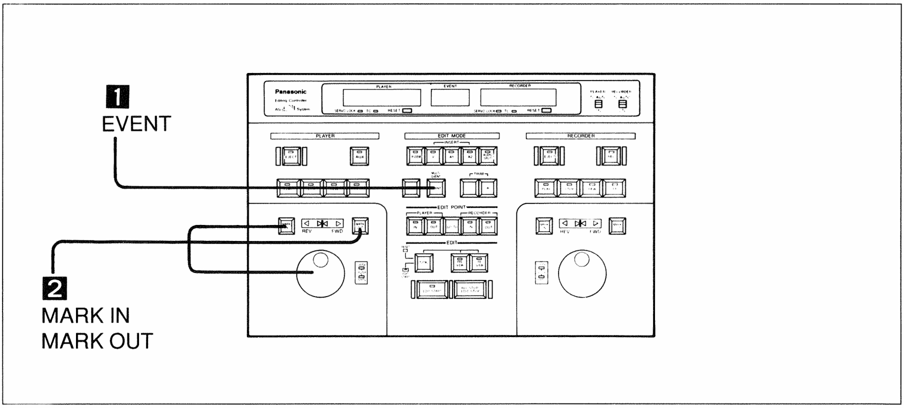
OPERATION **1** Switch on the power or press the TOTAL and RESET buttons simultaneously when the power is already turned ON. This will clear the event number display.


EVENT
Blank display

Multi events

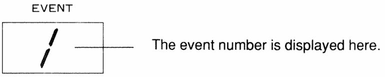
"Multi events" refers to a method of editing two or more (up to 128) events automatically.
Based on the editing points entered, the events are edited automatically, and the event number is automatically incremented by 1 as each event is edited.
The multi event can only be performed with the time code (TC) editing.


Player
1
2
3
Recorder
1
2
3


1
EVENT
2
MARK IN
MARK OUT
Panasonic
PLAYER
EVENT
RECORDER
EDIT MODE
INSERT
MULTI EVENT
TRIM
EDIT POINT
REV
FWD
EDIT

OPERATION

1 Press the EVENT button to establish the multi event editing mode. "1" appears on the event display.


EVENT
1
The event number is displayed here.

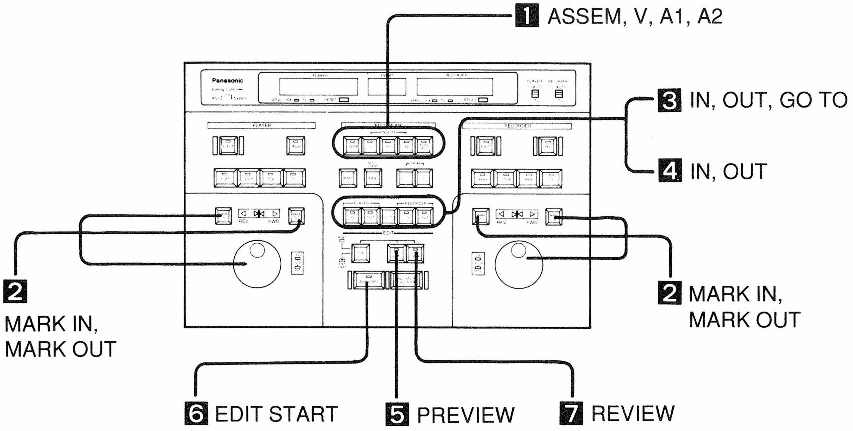
2 Proceed with normal editing and enter the editing data of the events required to be edited. When the edit points entries finished, the event number is automatically incremented by 1.

3 Event numbers can be added or subtracted by pressing the TRIM (+ or –) button while keeping the EVENT button depressed. This operation need not be done except to check or revise the edit points of events.

NOTE: Bear in mind that all the multi event editing data will be cleared when the TOTAL and RESET buttons are pressed simultaneously to switch the editing mode from multi events to single event.

Editing procedure

First complete the connections and switch settings. Then record the black burst signal and proceed with editing. The basic sequence of operation for single event editing is outlined below.


1 ASSEM, V, A1, A2
3 IN, OUT, GO TO
4 IN, OUT
2 MARK IN, MARK OUT
2 MARK IN, MARK OUT
6 EDIT START
5 PREVIEW
7 REVIEW
Panasonic

Step	OPERATION	Reference page	
		Single event	Multi event
1	Editing mode selection	25	25
2	Edit point entry	27	36
3	Edit point check, clear, revise	29~30	38~40
4	Duration check	31	41~42
5	Preview	32	43
6	Editing execution	33	44
7	Review	34	45

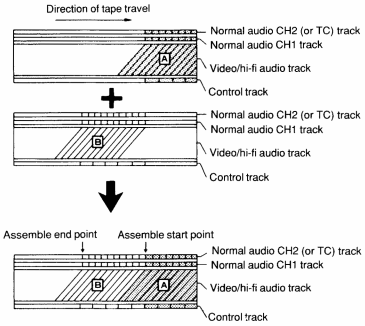
NOTE: The above steps indicate the basic operations. The procedure will differ slightly for multi event editing and audio split editing.

1-cut (single event) editing

1 Editing mode selection

There are two editing modes: assemble and insert.
When the power is turned on, all the editing lamps will flash. The editing mode can be selected while these lamps are still flashing.
If you fail to select the editing mode, the only editing operation you will be able to perform will be fast editing.

• Assemble editing
In this mode, the video and audio signals of the players are recorded simultaneously onto the tape in the recorder. It is not possible to select the video and audio signals as it is with insert editing. With assemble editing, the player's time code (TC) and control (CTL) signals are recorded simultaneously by the recorder.

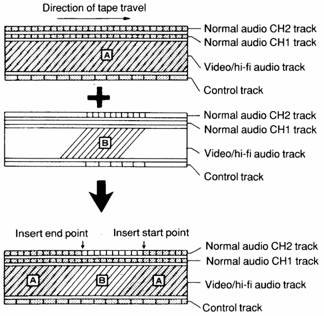


Direction of tape travel
Normal audio CH2 (or TC) track
Normal audio CH1 track
A
Video/hi-fi audio track
Control track
Normal audio CH2 (or TC) track
Normal audio CH1 track
B
Video/hi-fi audio track
Control track
Assemble end point
Assemble start point
Normal audio CH2 (or TC) track
Normal audio CH1 track
B
A
Video/hi-fi audio track
Control track

[Above illustration indicates VHS or S-VHS.]

"Assemble editing" consists in recording a new program and joining it onto any section of a pre-recorded program on a tape. As shown in the figure, new program B can be joined onto recorded program A. With assemble editing, the video/audio signals, time code and the control signals are edited simultaneously.

• Insert editing
In this mode, the player's video and audio signals can be selected and recorded on the tape in the recorder. However, the control signal is not recorded on the recorder.



Direction of tape travel
Normal audio CH2 track
Normal audio CH1 track
A
Video/hi-fi audio track
Control track
Normal audio CH2 track
Normal audio CH1 track
B
Video/hi-fi audio track
Control track
Insert end point
Insert start point
Normal audio CH2 track
Normal audio CH1 track
A
B
A
Video/hi-fi audio track
Control track

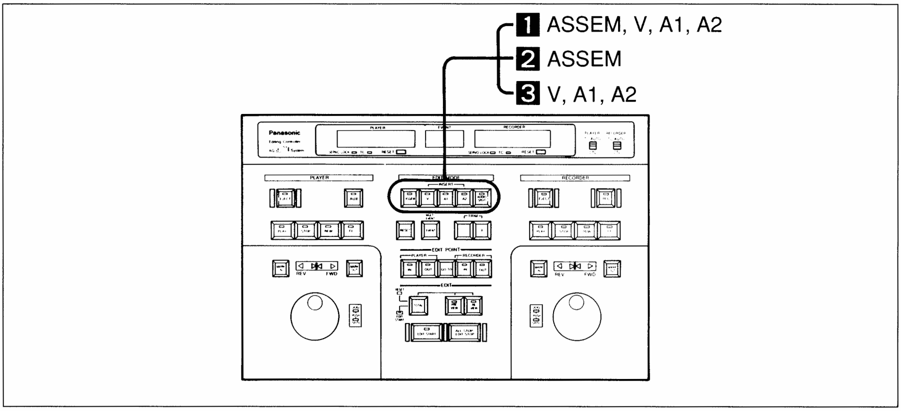
(When inserting video/hi-fi and normal audio CH2 signals)

[Above illustration indicates VHS or S-VHS.]

"Insert editing" consists in inserting a new program into any part of a program already recorded on a tape. As shown in the figure, new program B can be inserted into recorded program A.
With insert editing, the insertion of video and audio signals can be selected separately and the signals edited.

Single event editing

1 Edit mode selection (continued)



OPERATION

1. Check that ASSEM, V, A1 and A2 lamps are flashing. If any of the lamps are lit, press the corresponding buttons.

Assemble editing

2. Press the ASSEM button.
   Check that the ASSEM lamp has lit.

Insert editing

3. Press the V (VIDEO), A1 (AUDIO CH1) and A2 (AUDIO CH2) channel buttons. Check that their lamps are lit. The signals corresponding to the button whose lamp has lit are selected. Press the channel buttons whose signals are not going to be edited so that their lamps will go off.

NOTES:

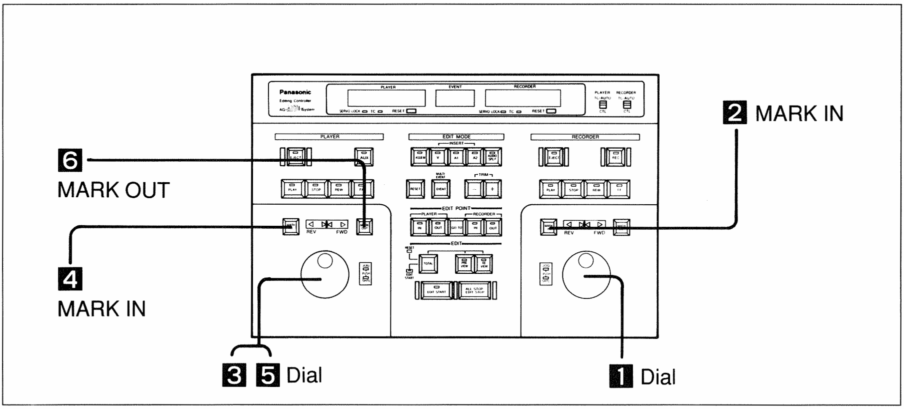
1) When a button is pressed once, its lamp lights; when it is pressed again, its lamp goes off. When ASSEM, V, A1 and A2 lamps have been set off, they start flashing.

2) The editing mode cannot be selected if the ASSEM lamp and insert (V/A1/A2) lamps have lit. The selection between assemble and insert editings can be activated only when the button lamps are flashing.

2 Edit point entry

There are two types of edit points: edit IN (start) and edit OUT (end). The place on the tape where editing is to commence is called the edit IN (start) point and the place where it is to end is called the edit OUT (end) point.
Edit points are located using the search dial.

When 3 of the 4 recorder and player edit points have been entered, the fourth point entry is not required. Even if this fourth point is now entered, it will be canceled if the other 3 points have already been entered. When it is not entered, the edit point set last is entered.
When an edit point is entered, the corresponding lamp lights.
When edit points are to be entered again after editing has been conducted, the edit point set last is entered. (Refer to the section on revising the edit points.)



OPERATION

Entering the recorder's edit points

1 Use the search dial to locate the IN (start) point of the recorder's picture to be edited.

2 Press the recorder's MARK IN button when the edit IN point is reached. When the recorder's IN lamp lights, it means that the recorder's edit IN point has been entered.

Entering the player's edit points

3 Use the search dial to locate the IN (start) point of the player's picture to be edited.

Single event editing

4 Press the player's MARK IN button when the edit IN point is reached. When the player's IN lamp lights, it means that the player's edit IN point has been entered.

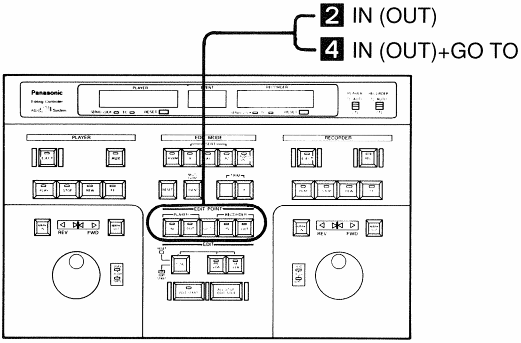
5 Use the search dial to locate the OUT (end) point of the player's picture to be edited.

6 Press the player's MARK OUT button when the edit OUT point is reached. When the MARK OUT lamp lights, it means that the player's edit OUT point has been entered.

NOTE: Depending on the kind of editing performed, the edit OUT point may also be entered at the recorder. For instance, it is more convenient to enter the edit OUT point at the recorder when the editing time has already been determined by insert editing.

3 Edit point checking

Check the edit points before proceeding with editing. Edit point checking can be performed on the counter display or on the TV monitor.



OPERATION

Checking the counter display

1 Check that the IN (or OUT) lamp has lit.
If the lamp is off, it means that the edit point has not been entered.

2 Press the IN (or OUT) button.
The edit IN (or OUT point) appears on the display.

Checking the screen display

3 Check that the IN (or OUT) lamp has lit.
If the lamp is off, it means that the edit point has not been entered.

4 Press the GO TO and IN buttons simultaneously to check the edit IN point picture.
Press the GO TO and OUT buttons simultaneously to check the edit OUT point picture.

NOTES:

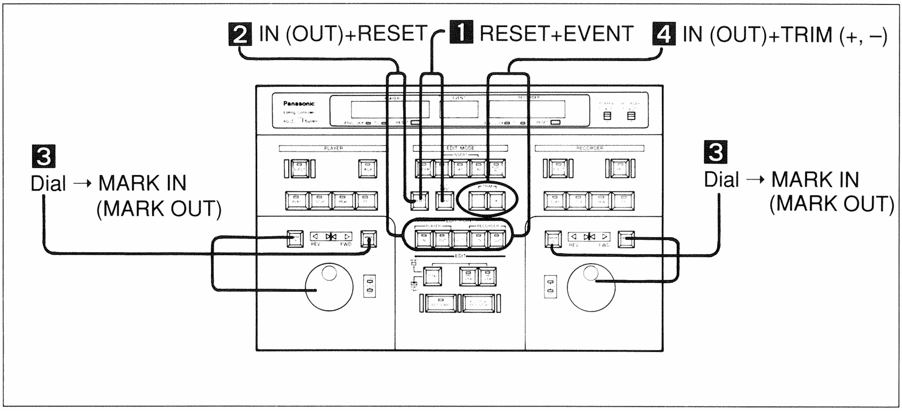
1) When 3 edit points have been entered and the IN or OUT button with its lamp off is pressed for the fourth edit point, the calculated value appears on the counter display.

2) See page 48 for details on how to check the audio split edit points.

Single event editing

3 Edit point clearing and revising

Follow the steps below to clear or revise edit points.



2 IN (OUT)+RESET
1 RESET+EVENT
4 IN (OUT)+TRIM (+, –)
3 Dial → MARK IN (MARK OUT)
3 Dial → MARK IN (MARK OUT)
Panasonic
PLAYER
EDIT MODE
RECORDER
REV
FWD

OPERATION

When clearing entered edit IN and OUT points

1 Press the EVENT button while keeping the RESET button depressed. The IN and OUT lamps go off, and the entered edit IN and OUT points are cleared.

NOTE: Do not press the EVENT button before the RESET button since this will switch operation to multi event editing.

When clearing entered edit IN (or OUT) point

2 Press the RESET button while keeping the IN (or OUT) button depressed. The lamp goes off, and the display is cleared.

When using the search dial to revise edit points

3 Locate the edit point, press the MARK IN (or MARK OUT) button, and enter the edit point again.

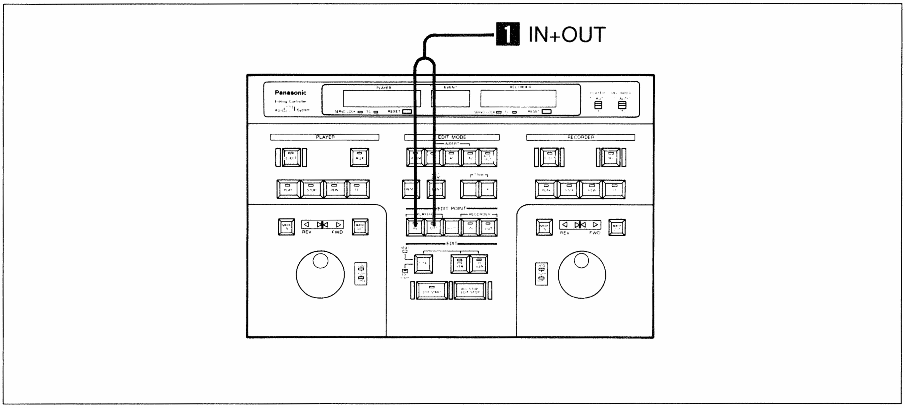
When using the TRIM buttons to revise edit points

4 Press the TRIM (+ or –) button while keeping the IN (or OUT) button depressed. Each time a TRIM button is depressed, the edit point is advanced or retracted by one frame.

NOTE: If, when re-entering an edit point, the edit IN point is past the OUT point, that point will not be entered, and an error will result.

4 Duration check

Follow the step below to ascertain the editing time.


1 IN+OUT
Panasonic
PLAYER
EVENT
RECORDER
EDIT MODE
INSERT
EDIT POINT
EDIT
REV
FWD

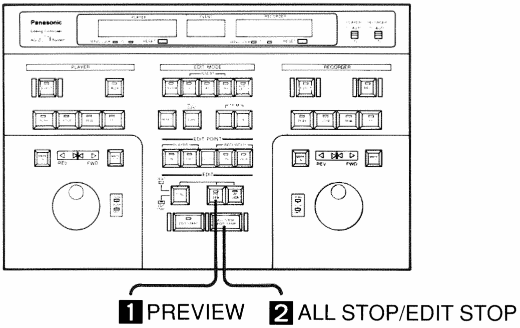
OPERA-TION

1 Press the IN and OUT buttons simultaneously.
The editing time now appears on both the player's and recorder's displays.
If nothing appears on the display, it means that the edit IN and OUT points have not been entered.

Single event editing

5 Preview

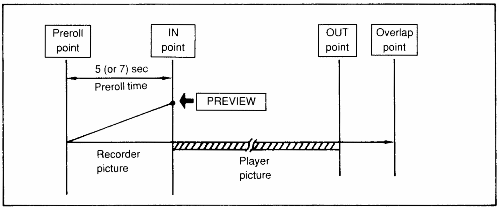
"Preview" means a rehearsal of the editing. The part which is edited is not actually recorded on tape.


1 PREVIEW
2 ALL STOP/EDIT STOP

OPERA-TION

1 Press the PREVIEW button.
The PREVIEW lamp lights and preview starts.
When preview is completed, the PREVIEW lamp goes off.

2 Press the ALL STOP/EDIT STOP button to end the preview at any time.


Preroll point
IN point
OUT point
Overlap point
5 (or 7) sec
Preroll time
PREVIEW
Recorder picture
Player picture

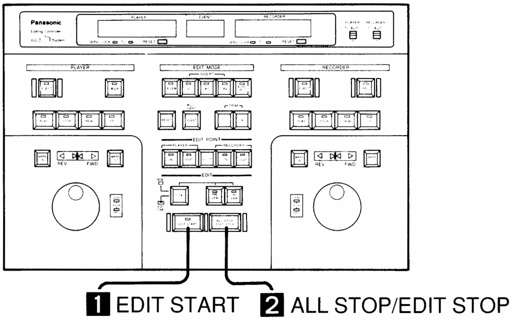
NOTES:

1) When preview is attempted without the edit IN point having been entered, the position on the tape where the PREVIEW button is pressed will be entered as the edit IN point and preview will be conducted.

2) If preview is attempted without the edit OUT point having been entered, pressing the ALL STOP/EDIT STOP button past the IN point results in entering the position on the tape where the button was pressed as the edit OUT point to proceed with preview in the case of insert editing. In the case of assemble editing, however, it will not be entered as the OUT point and preview will be completed.

6 Editing

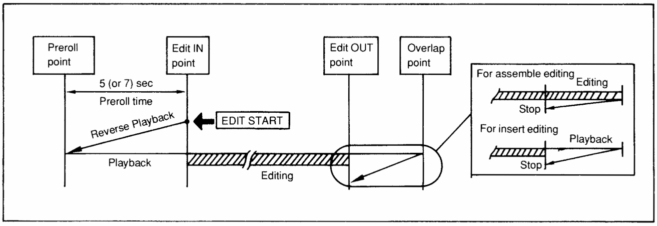
This is the actual editing operation. It is started on the basis of the entered edit data.


Panasonic
PLAYER
EDIT MODE
RECORDER
REV
FWD
EDIT POINT
EDIT
1 EDIT START
2 ALL STOP/EDIT STOP

OPERATION

1. Press the EDIT START button.
   The EDIT START lamp lights and editing commences.

2. To terminate editing at any time, press the ALL STOP/EDIT STOP button. If the edit OUT point has not been entered, the point where the ALL STOP/EDIT STOP button was pressed serves as the OUT point.


Preroll point
Edit IN point
Edit OUT point
Overlap point
5 (or 7) sec
Preroll time
Reverse Playback
EDIT START
Playback
Editing
For assemble editing
Editing
Stop
For insert editing
Playback
Stop

NOTES:

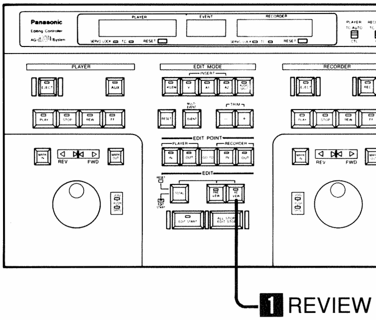
1) When editing is attempted without the edit IN point having been entered, it will be performed with the position where the EDIT START button was pressed entered as the edit IN point.

2) If editing is attempted without the edit OUT point having been entered, and if the ALL STOP/EDIT STOP button is pressed, the position on the tape where the button was pressed will be entered as the edit RECORDER OUT point, and editing will be completed.

Single event editing

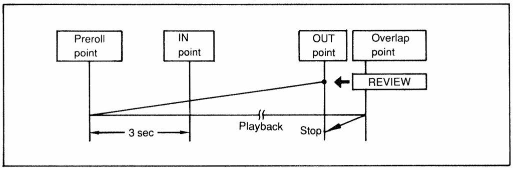
7 Review

This is an operation for checking what has been recorded on the tape after editing is completed.


Panasonic
PLAYER
EVENT
RECORDER
EDIT MODE
EDIT POINT
REV
FWD
EDIT
1 REVIEW

OPERA-TION

1 Press the REVIEW button.
The REVIEW lamp lights, and the recorder starts the review. When the review is completed, the REVIEW lamp goes off and the recorder VTR stops at the OUT point.


Preroll point
IN point
OUT point
Overlap point
REVIEW
3 sec
Playback
Stop

Continuous (multi event) editing

1 Editing mode selection

The method used for entering in the edit mode for multi event editing is the same as that for 1-cut (single event) editing. For details, refer to page 25~26.

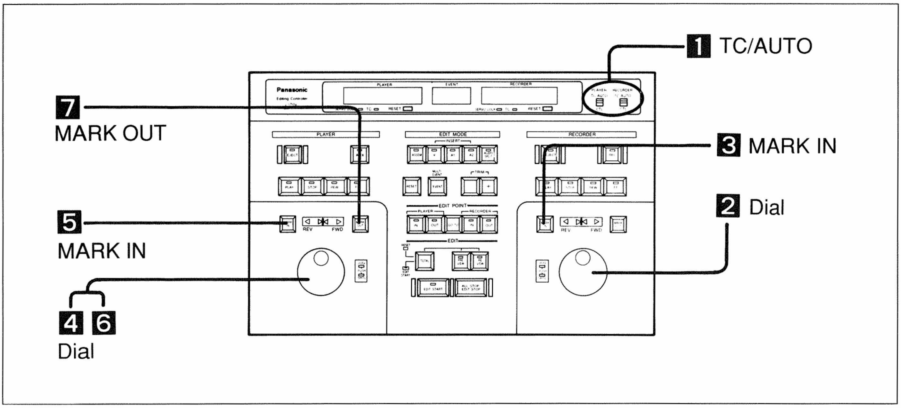
Multi event editing

2 Edit point entry

Except for the fact that the event number is incremented by 1 each time an event is entered, the method used to enter the edit points for multi event editing is the same as that for single event editing.

PREPARATION

1 Set the TC/AUTO/CTL selectors on both the player and recorder to TC/AUTO.



OPERATION

Setting and entering the recorder's edit points

2 Use the search dial to locate the recorder's IN (start) point for the picture to be edited.

3 Press the MARK IN button on the recorder at the edit IN point. When the IN lamp lights, it means that the entry of the recorder's edit IN point has been completed.

Entering the player's edit point

4 Use the search dial to locate the player's IN (start) point for the picture to be edited.

5 Press the MARK IN button on the player at the edit IN point. When the IN lamp lights, it means that the entry of the player's edit IN point has been completed.

6 Use the search dial to locate the player's OUT (start) point for the picture to be edited.

7 Press the MARK OUT button on the player at the edit OUT point. When the OUT lamp lights, it means that the entry of the player's edit OUT point has been completed.
The event number is automatically incremented by 1, and the recorder's IN point can be entered automatically.

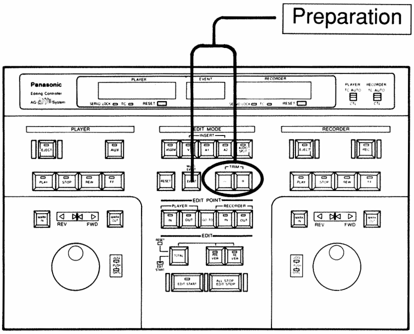
8 Return to step [4] and enter the player's IN and OUT points in sequence.

NOTE: With insert editing, return to step [2] when setting the recorder's IN point at another position.

Multi event editing

3 Edit point check

PREPARATION Press the TRIM (+ or –) button while keeping the EVENT button depressed to display the event number to be checked.


Preparation
Panasonic
PLAYER
EVENT
RECORDER
EDIT MODE
INSERT
TRIM
EDIT POINT
EDIT
REV
FWD

EVENT + TRIM (+, –)

OPERATION

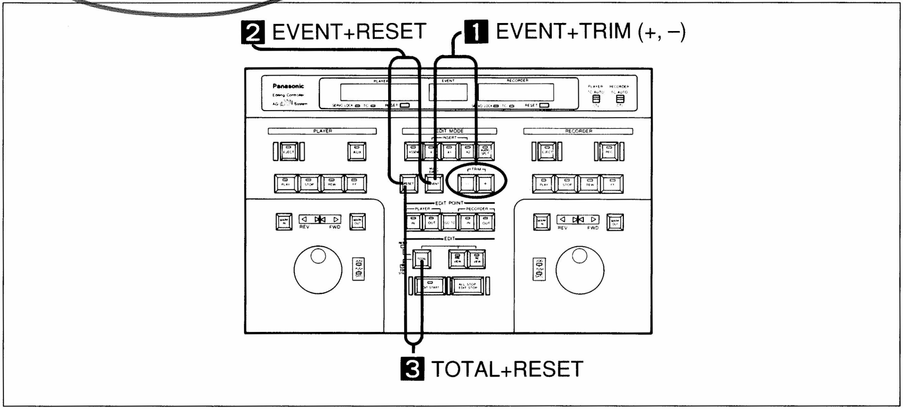
1) Display check (see page 29)

2) Screen check (see page 29)

3) Procedure for audio split editing (see page 48)

In each of the above cases, operation is the same as for single event editing. Refer to the page concerned.

3 Edit point clear



OPERATION

Clearing the entry of edit points for specific events

1 Press the TRIM (+ or –) button while keeping the EVENT button depressed until the event number to be cleared appears on the event number display.

2 Press the RESET button while keeping the EVENT button depressed. The entry of the edit points of the event number displayed is cleared.

NOTE: Even when an event has been cleared, the cleared event number will still be on the event number display. When entering material into this event, enter it without further ado. If, on the other hand, the TRIM (+ or –) button is pressed while keeping the EVENT button depressed to advance or retract the event number, and if a return is made again to the cleared event number, it will not be displayed.

Clearing the entry of edit points for all events

3 Press the RESET button while keeping the TOTAL button depressed. The entry of all the edit events is now cleared, the event number display is cleared, and the single-event editing mode is established.

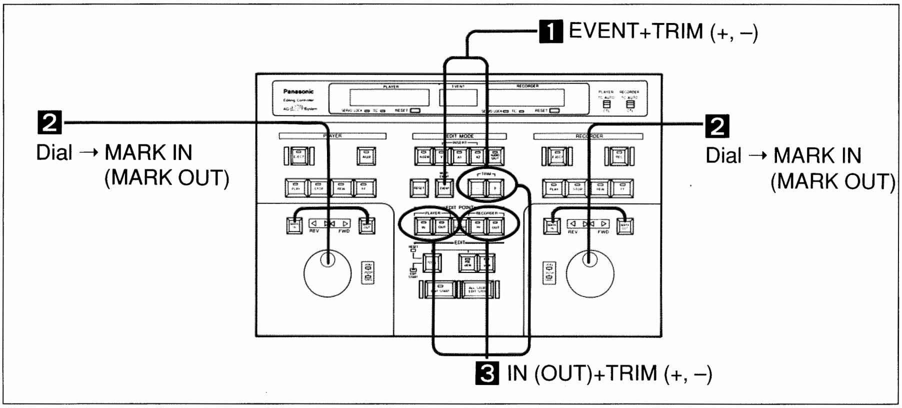
Multi event editing

3 Edit point revise

PREPARATION

Revising the entry of an event's edit points

1 Press the TRIM (+ or –) button while keeping the EVENT button depressed until the event number to be revised appears on the event number display.



OPERATION

When revising edit points using the search dial

2 Locate the edit point, press the MARK IN (or MARK OUT) button, and enter the edit point again.

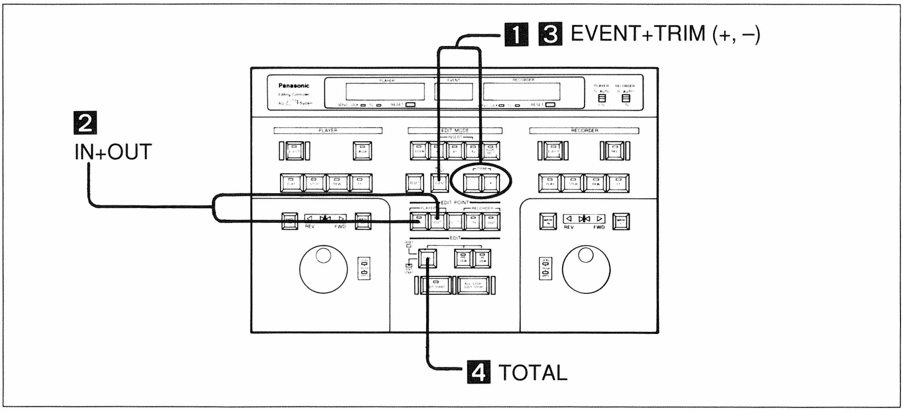
When revising edit points using the TRIM buttons

3 Press the TRIM (+ or –) button while keeping the IN (or OUT) button depressed. Each time the TRIM button is pressed, the edit point is advanced or retracted by one frame.

NOTE: When the position of the edit OUT point is ahead of the edit IN point, press the IN (or OUT) button and RESET button simultaneously to reset the edit points.

4 Duration and total time check

Follow the steps below to ascertain the duration of events and total time up to a specific event.



OPERATION

Duration of specific events

1. Press the TRIM (+ or –) button while keeping the EVENT button depressed until the event number in question appears on the event number display.

2. Press the IN and OUT buttons simultaneously. The duration of the event appears on both the player's and recorder's displays.

Total time up to a specific event

Follow the steps below to ascertain the total time on the recorder's tape from the first event to the OUT point of a specific event.

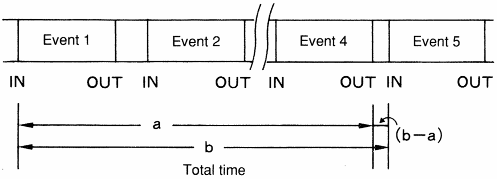
3. Press the TRIM (+ or –) button while keeping the EVENT button depressed until the event number in question appears on the event number display.

4. Press the TOTAL button. While this button is kept depressed, the total time from the IN point of the recorder's first event to the OUT point of the present event is indicated on the recorder's display.

NOTES: 1) The editing durations are not calculated in the total time up to the present event. The total time from the IN point of the recorder's first event to the OUT point of the specified event is displayed.

Multi event editing

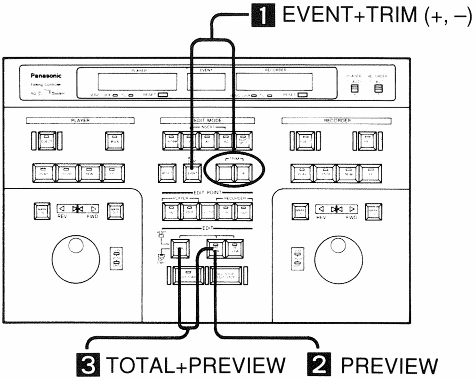
2) When the OUT point has not been entered, the total time up to the IN point is displayed; when the edit points of the event in question have not been entered, the total time up to the OUT point of the previous event is displayed.
If the total time for event 5 below is to ascertained, there will be a discrepancy (b-a) in the total time between a case where the IN point has been entered and a case where it has not been entered (in which case the OUT point of the previous event applies).



3) When the IN point of event 1 has not been entered, the total time is not displayed.

4) When a button is pressed during actual editing, the time may not be indicated properly.

5 Preview


1 EVENT+TRIM (+, –)
Panasonic
PLAYER
EVENT
RECORDER
EDIT MODE
INSERT
TRIM
EDIT POINT
EDIT
REV
FWD
3 TOTAL+PREVIEW
2 PREVIEW

OPERATION

Preview of a specific event

1 Press the TRIM (+ or –) button while keeping the EVENT button depressed to display the event number which is to be previewed.

2 Press the PREVIEW button.
The preview of the event in question now commences.

Preview of all events

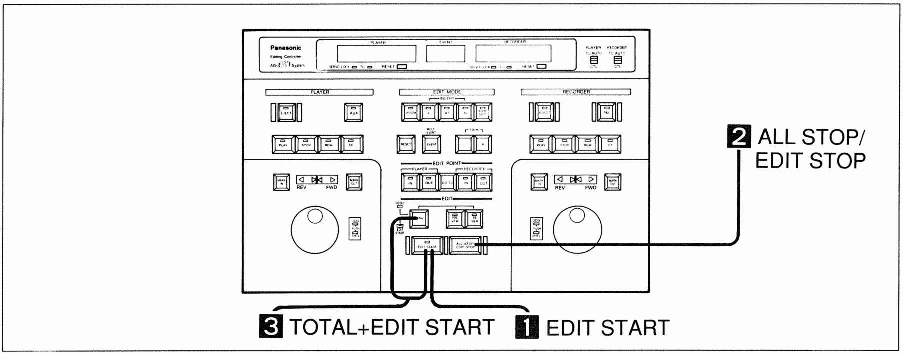
3 When the insert editing mode was used for all the events entered, press the PREVIEW button while keeping the TOTAL button depressed. Preview now commences in the recorded sequence starting from event number "1".

NOTE: Preview cannot be performed if, with assemble editing, the recorder's IN point is located on a non-recording part of the tape.

Multi event editing

6 Editing

PREPARATIONS 1) Check that the edit points of the event to be edited have been entered.



OPERATION

Editing events which have not been edited

1 Press the EDIT START button to start editing.
If there is an event which has already been edited, editing starts from the following non-edited event.

NOTE: When an edit point is to be corrected even for an already edited event, that event will be edited. With assemble editing, however the subsequent events will be edited.

Terminating editing at any time

2 **To terminate editing upon completion of the editing of an event:**
Press the ALL STOP/EDIT STOP button once. Once the editing of an event being executed is completed, the VTR will stop.

To terminate editing immediately:
Press the ALL STOP/EDIT STOP button twice.
This will stop the editing immediately.

Editing all the events

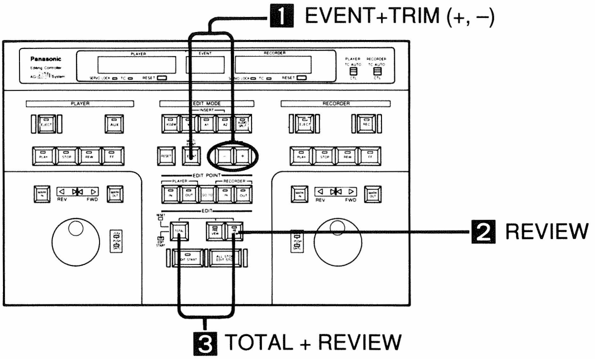
3 Press the EDIT START button while keeping the TOTAL button depressed. Editing is executed from the beginning in sequence as determined by the entered event numbers.
When the editing is completed, the VTR will stop automatically.

NOTE: Be advised that even if there are events which have already been edited, editing will commence from the start in each case.

NOTE: An error results and editing is suspended if there is an event whose edit points have not been entered properly. However, if it is the last event and it is the OUT point which has not been entered, this last event will be edited provided that the IN points of the player and recorder have been entered. In this case, editing is completed when the ALL STOP/EDIT STOP button is pressed.

7 Review

The edited tape can be checked (reviewed) upon completion of all the multi-event editing.


1 EVENT+TRIM (+, –)
2 REVIEW
3 TOTAL + REVIEW
Panasonic
PLAYER
EVENT
RECORDER
EDIT MODE
EDIT POINT
EDIT
REV
FWD

OPERATION

Review of a specific event

1 Press the TRIM (+ or –) button while keeping the EVENT button depressed to display the event number which is to be reviewed.

2 Press the REVIEW button.
The review of the event in question now commences.

Review of all events

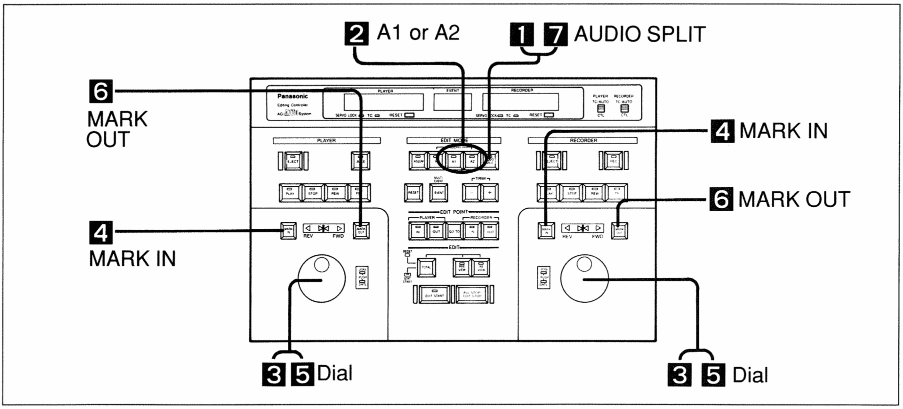
3 Press the REVIEW button while keeping the TOTAL button depressed. The events are played back in sequence on the recorder's TV monitor starting with event number "1". Upon completion of the review, the recorder stops at the OUT point of the last event number.

Audio split editing

In the insert editing mode, the audio edit points can be entered separately from the video edit points. One effect of audio split editing is, for instance, that the only sound of the next picture can be selected even though the picture on the screen has remained unchanged.

1 Edit point entry

PREPARATION 1) Check that the V and A1 (or A2) lamps have lit.


2 A1 or A2
1 7 AUDIO SPLIT
6 MARK OUT
4 MARK IN
4 MARK IN
6 MARK OUT
3 5 Dial
3 5 Dial
Panasonic
PLAYER
EVENT
RECORDER
EDIT MODE
EDIT POINT
EDIT
REV
FWD

OPERATION

1 Press the AUDIO SPLIT button. When the AUDIO SPLIT lamp flashes, it means that the audio split edit point can be entered.

2 Press the A1 or A2 button to light its lamp. Now select the channel to be edited.

3 Locate the audio IN point of the player (or recorder).

When checking the video IN point, press the AUDIO SPLIT button to light its lamp, and press the IN button to check the IN point. Upon completion of the check, press the AUDIO SPLIT button to make its lamp flash.

4 Press the MARK IN button to enter the IN point.

Upon completion of the entry, the IN lamp lights.

5 Locate the audio OUT point of the player (or recorder).

When checking the video OUT point, press the AUDIO SPLIT button to light its lamp, and press the OUT button to check the OUT point. Upon completion of the check, press the AUDIO SPLIT button to make its lamp flash.

6 Press the MARK OUT button to enter the OUT point.

Upon completion of the entry, the OUT lamp lights.

7 Press the AUDIO SPLIT button. When the AUDIO SPLIT lamp lights, the regular edit points can be entered.

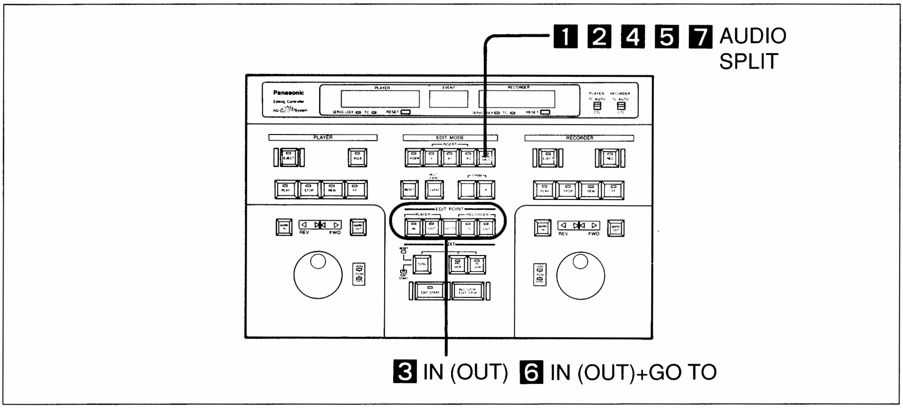
NOTES:

1) Audio split editing can be performed when the insert editing mode is established. Even when the ASSEM button is pressed, its lamp remains off.

2) The V lamp stays lit at all times.

Audio split editing

2 Edit point check


1 2 4 5 7 AUDIO SPLIT
3 IN (OUT) 6 IN (OUT)+GO TO
Panasonic
PLAYER
EVENT
RECORDER
EDIT MODE
EDIT POINT
REV
FWD

OPERATION

Checking on the counter display

1 Check that the AUDIO SPLIT lamp has lit. If the lamp is off, it means that the audio split edit points have not been entered.

2 When the AUDIO SPLIT button is pressed, its lamp flashes.

3 Press the IN (or OUT) button. The audio split edit point is indicated on the display.

Check the edit points on the screen

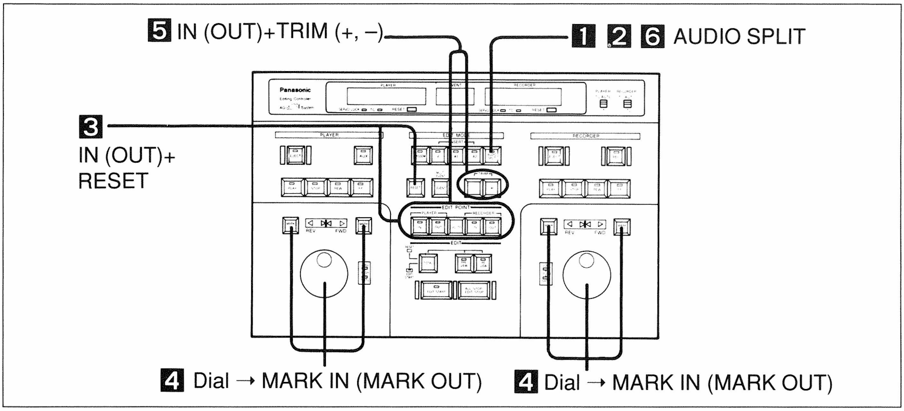
4 Check that the AUDIO SPLIT lamp has lit. If the lamp is off, it means that the audio split edit points have not been entered.

5 When the AUDIO SPLIT button is pressed, its lamp flashes.

6 Press the GO TO button while keeping the IN (or OUT) button depressed, and the picture of the audio split edit points appear on the screen. Turn the JOG dial and check the sound.

7 Upon completion of the check, press the AUDIO SPLIT button and light its lamp.

2 Revising/clearing the edit points


5 IN (OUT)+TRIM (+, –)
1 2 6 AUDIO SPLIT
3 IN (OUT)+ RESET
4 Dial → MARK IN (MARK OUT)
4 Dial → MARK IN (MARK OUT)
Panasonic
PLAYER
RECORDER
EDIT MODE
TRIM
EDIT POINT
EDIT
REV
FWD

PREPARA-TIONs

1 Check that the AUDIO SPLIT lamp has lit. If the lamp is off, it means that the audio split edit points have not been entered.

2 When the AUDIO SPLIT button is pressed, its lamp flashes.

OPERA-TION

Clearing an entered edit point

3 Press the RESET button while keeping the IN (or OUT) button depressed. Its lamp goes off and the display is cleared.

When revising an edit point using the search dial

4 Locate the edit point, press the MARK IN (or MARK OUT) button, and re-enter the edit point.

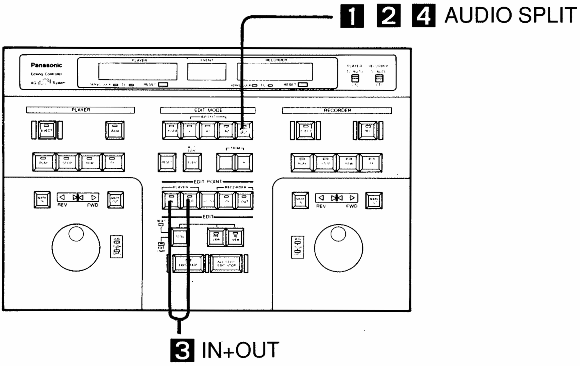
When revising an edit point using the TRIM buttons

5 Press the TRIM (+ or –) button while keeping the IN (or OUT) button depressed. Every time the TRIM button is pressed, the edit point is advanced or retracted by one frame.

6 Upon completion of the check, press the AUDIO SPLIT button. Its flashing lamp now lights up.

Audio split editing

3 Duration check


1 2 4 AUDIO SPLIT
3 IN+OUT
Panasonic
PLAYER
EVENT
RECORDER
EDIT MODE
EDIT POINT
EDIT
REV
FWD

OPERA-TION

1 Check that the AUDIO SPLIT lamp has lit. If the lamp is off, it means that the audio split edit points have not been entered.

2 When the AUDIO SPLIT button is pressed, its lamp flashes.

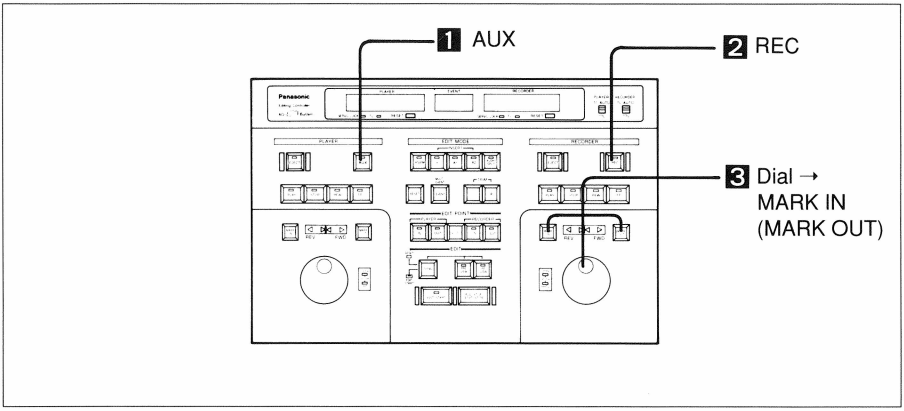
3 Press the IN and OUT buttons simultaneously. The duration of the audio split editing now appears on the recorder's display.

4 Upon completion of the check, press the AUDIO SPLIT button. Its flashing lamp now lights up.

Inserting titles onto edit tape

Titles or other video signals can be selected and edited using a camera or the video titler etc.

PREPARATION Connect the video output connector of the camera or video titler to the AUX IN connector on the rear panel of this unit.



OPERATION

1 Press the AUX button. Check that the AUX lamp is lit.

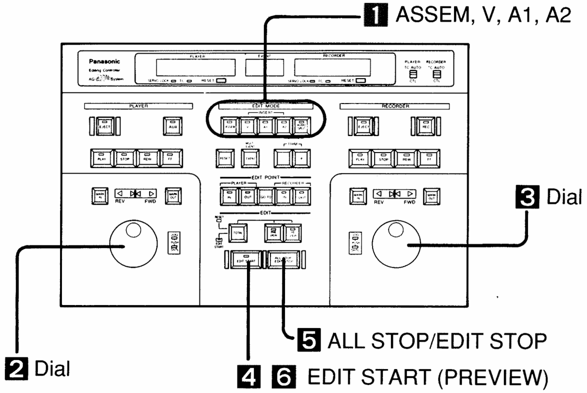
2 Press the REC button. While the REC button is kept depressed, the title screen appears on the recorder's TV monitor.

NOTE: Even when an MII VTR is set to the TAPE mode, the title screen will appear on the TV monitor.

3 Enter on the recorder the edit IN and OUT points for inserting the title screen. (Refer to the section on entering the edit points on page 27)
When performing preview or editing, the title screen appears on the recorder's TV monitor and, in the case of ongoing editing, it is recorded on the tape. Upon completion of the recording, the AUX lamp goes off.

NOTES:
1) OUT points cannot be entered with assemble editing. Enter only the edit IN points. To complete editing, press the ALL STOP/EDIT STOP button.
2) When the camera and video titler are not synchronized with the external sync signal, supply signals to this unit's REF IN connector and synchronize the recorder with the same signal.

Editing without entering edit IN point on the recorder (auto tag function)



OPERATION

1. Select the editing mode.
For instance, press the ASSEM button.

2. Use the search dial to locate the player's edit IN point and establish the still-picture mode.

3. Use the search dial to locate the recorder's edit IN point and establish the still-picture mode.

4. Press the EDIT START button when starting the editing. Editing is performed with the position where the button was pressed automatically entered as the edit IN point.

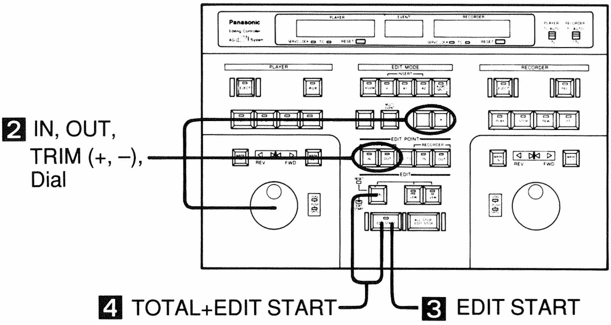
5. Upon completion of the editing, press the ALL STOP/EDIT STOP button. The position where the button was pressed is automatically entered as the edit OUT point, and editing is completed. The recorder now stops at the OUT point.

6. When the EDIT START button is pressed, editing is performed with the previous edit OUT point automatically entered by the recorder as the next edit IN point.

NOTE: If the tape is moved before the EDIT START button is pressed, the auto tag function will be released and the previous edit OUT point will not serve as the next edit IN point.

Arranging edit data

This unit enables the recorder's entered edit points to be arranged in the assemble edit mode. (However, the points may not be arranged properly if editing is performed between drop frames and non-drop frames.)



OPERATION

1 For instance, prepare the kind of editing program as shown below.

	Player		Recorder	
Event No.	IN point	OUT point	IN point	OUT point
1	00 : 00 : 00 : 00	00 : 00 : 05 : 00	00 : 00 : 00 : 00	00 : 00 : 05 : 00
2	00 : 00 : 10 : 00	00 : 00 : 15 : 00	00 : 00 : 05 : 00	00 : 00 : 10 : 00
3	00 : 00 : 30 : 00	00 : 00 : 35 : 00	00 : 00 : 10 : 00	00 : 00 : 15 : 00
4	00 : 00 : 45 : 00	00 : 00 : 50 : 00	00 : 00 : 15 : 00	00 : 00 : 20 : 00

2 Press the TRIM – button while keeping the OUT button depressed, and revise the player's edit OUT point to 12 sec.

3 **Editing a non-edit event**

When you press the EDIT START button, the non-edit event data will be arranged, and editing will take place.

- For an event for which editing has already been completed, if the edit point is changed, the edit data of that event will be arranged, and editing will take place once again.

4 **Editing all the events**

If you press the EDIT START (or PREVIEW) button while pressing the TOTAL button, the edit data of all the events will be arranged, and editing (or preview) will take place.

	Player		Recorder	
Event No.	IN point	OUT point	IN point	OUT point
1	00 : 00 : 00 : 00	00 : 00 : 05 : 00	00 : 00 : 00 : 00	00 : 00 : 05 : 00
2	00 : 00 : 10 : 00	00 : 00 : 12 : 00	00 : 00 : 05 : 00	00 : 00 : 07 : 00
3	00 : 00 : 30 : 00	00 : 00 : 35 : 00	00 : 00 : 10 : 00	00 : 00 : 15 : 00
4	00 : 00 : 45 : 00	00 : 00 : 50 : 00	00 : 00 : 15 : 00	00 : 00 : 20 : 00

⇩

Recorder	
IN point	OUT point
00 : 00 : 00 : 00	00 : 00 : 05 : 00
00 : 00 : 05 : 00	00 : 00 : 07 : 00
00 : 00 : 07 : 00	00 : 00 : 12 : 00
00 : 00 : 12 : 00	00 : 00 : 17 : 00

NOTE: Edit data cannot be arranged in order during insert editing.

TC (time code) and CTL (control) signals

A time code (TC) refers to an absolute address recorded on one of the tape's tracks. It is generated by the time code generator and read by the time code reader. Even when the counter's reset button is pressed or the tape ejected, its recorded value will always be retained unless another time code is recorded in its place.
The control signal (CTL) refers to a relative address which is recorded on the tape. When the reset button is pressed or the tape ejected, the counter is cleared to zero, and the edit points are lost.
The TC and CTL recording methods are, in this way, different. When editing using CTL, the edit points are lost and must be re-entered when the reset button is pressed or the tape ejected. When editing using TC, the edit points are not lost even if the reset button is pressed or the tape ejected.

NOTE: Edit multi events using the time code signal. The editing accuracy will be impaired if the control signal is used.

DF (drop frame) and NDF (non-drop frame)

Drop frame and non-drop frame are expressions used for time code signal editing modes.
SMPTE time codes are recorded at the rate of 30 frames per second. Since NTSC color signals are recorded at a rate of 29.97 fames per second, this discrepancy in time will increase when long periods of time are involved: for instance, the time codes will be delayed by 3.6 sec (108 frames) over the period of an hour. To compensate for this time lag, some frames must be deleted so that the time codes are advanced to make adjustment to a real-time basis. The deleted frames are called "drop frames" and the means used to make adjustment to the real time is called the "drop frame mode." Used to calculate the drop frame mode is a method which counts in each hour the 0, 10, 20, 30, 40, 50 and 60(0) integral minutes as they are and which drops two frames (frames 00 and 01) for each integral minute.
In the non-drop frame mode, recording is performed in the original form without compensating for the time lag, and since this involves no frames being dropped, it is called the "non-drop frame" mode.

For instance:

- With DF, the time code after 01:04:59:29 is 01:05:00:02.

  "DF" is indicated by "." on the TV monitor.

- With NDF, the time code after 01:09:59:29 is 01:10:00:00.

No differentiation is made between DF and NDF on the counter. However, the differentiation is made as described above on the TV monitor screen onto which the information is superimposed.

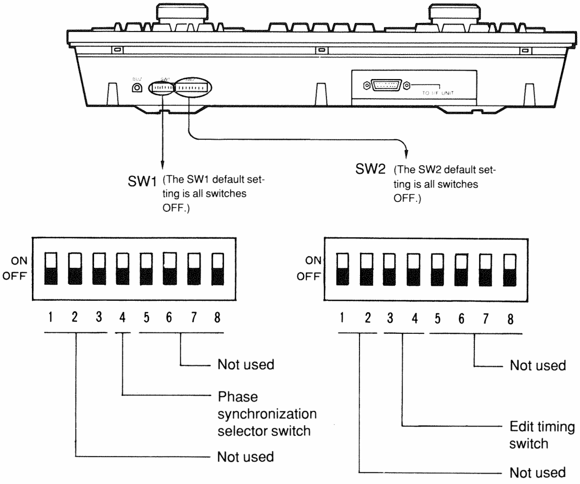
NOTE: First editing, as performed by this unit, is executed in the NDF mode. However, when material has been recorded on the tape in the DF mode, it will be executed in the DF mode.

Prerolling

It cannot be said that a good editing job has been done if disturbances are seen to remain in the pictures where material has been joined on an edited tape. This is why the player and recorder must be synchronized for editing.
The preroll time is the time taken to provide this synchronization.
This unit's preroll time is automatically set to 5 seconds.
It is 7 seconds when the 34P interface board is connected to the recorder. In either case, synchronization can be performed in the preroll period, but even if it cannot be achieved, editing will be established forcibly.

DIP switches

Control unit section



TO I/F UNIT
SW1 (The SW1 default setting is all switches OFF.)
SW2 (The SW2 default setting is all switches OFF.)
ON
OFF
1 2 3 4 5 6 7 8
Not used
Phase synchronization selector switch
Not used
ON
OFF
1 2 3 4 5 6 7 8
Not used
Edit timing switch
Not used

SW1-4: This selects the phase synchronization operation when the recorder is being remote controlled in the 34-pin mode.

ON: Phase synchronization is achieved at the search side.

OFF: Phase synchronization is achieved at the capstan side (VTRs with CAP OVERRIDE function).

SW2-3: Selector switch when edit timing device type is 1000.

Valid only when the SW2-4 is OFF.

ON: Based on SW501-5 to 7 (see page 56) settings on I/F unit

OFF: An edit execution command is output when the frame count is one less than the count at the edit IN point.

SW2-4: This selects the edit timing.

ON: Based on SW501-5 to 7 (see page 56) settings on I/F unit

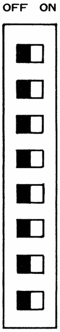
OFF: Edit timing is achieved automatically.

DIP switches

I/F unit section

NOTE: Consult with your dealer if you plan to change the settings of the DIP switches on the I/F unit.

SW501 (The SW501 default setting is all switches OFF.)



1 —— Frame (30/25 frames, ON: 25 frames)

2 —— Edit timing of edit IN point [ON: faster by 1 frame (used with 34P remote control cable)]

3 —— Not used

4 —— Not used

5, 6, 7 — Edit timing for remote control in 9-pin mode (see table below)

8 —— Not used

SW501-5 to 7: This switch selects the edit timing when the VTR is remote controlled in the 9-pin mode. The edit execution command is output when, due to the switch setting, the frame following the edit IN point applies. (Default setting: –1 frame)

Timing frame SW501	–1	–2	–3	–4	–5	–6	–7	–8
5	OFF	OFF	OFF	OFF	ON	ON	ON	ON
6	OFF	OFF	ON	ON	OFF	OFF	ON	ON
7	OFF	ON	OFF	ON	OFF	ON	OFF	ON

SW502-1 to 8: Not used

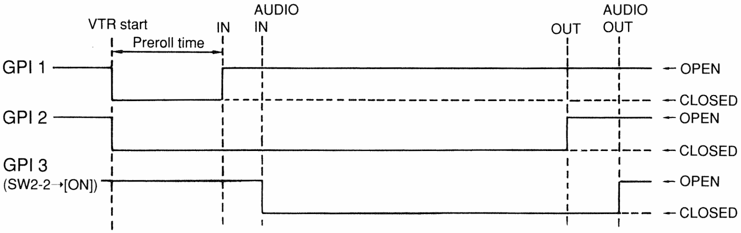
Output pulses from AUX CONTROL connector

This unit can output pulse signals to an external unit connected to its AUX CONTROL connector for start control or switcher control.

The pulse signals output from the AUX CONTROL connector (15-pin) come in 3 patterns and they can be output simultaneously.

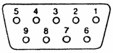
GPI1: Output from pins 1 and 2
GPI2: Output from pins 3 and 4
GPI3: Output from pins 5 and 6

The output signals are shown in the figure below.


VTR start
Preroll time
IN
AUDIO IN
OUT
AUDIO OUT
GPI 1
GPI 2
GPI 3
(SW2-2→[ON])
OPEN
CLOSED
OPEN
CLOSED
OPEN
CLOSED

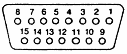
Connector Signals

• 9P REMOTE Connector



Pin No.	Signal	Pin No.	Signal
1	FRAME GROUND	6	RECEIVE COMMON
2	RECEIVE A	7	RECEIVE B
3	TRANSMIT B	8	TRANSMIT A
4	TRANSMIT COMMON	9	FRAME GROUND
5	SPARE		

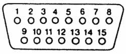
• TO KEY BOARD Connector (15P)


8 7 6 5 4 3 2 1
15 14 13 12 11 10 9

(Female)

Pin No.	Signal	Pin No.	Signal
1	FRAME GROUND	9	RECEIVE COMMON
2	RECEIVE A	10	RECEIVE B
3	TRANSMIT B	11	TRANSMIT A
4	TRANSMIT COMMON	12	FRAME GROUND
5	SPARE	13	+12V
6	+12V	14	+12V
7	SIGNAL GROUND	15	SIGNAL GROUND
8	SIGNAL GROUND		

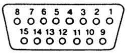
• TO I/F UNIT Connector (15P)


1 2 3 4 5 6 7 8
9 10 11 12 13 14 15

(Male)

Pin No.	Signal	Pin No.	Signal
1	FRAME GROUND	9	TRANSMIT COMMON
2	TRANSMIT A	10	TRANSMIT B
3	RECEIVE B	11	RECIVE A
4	RECIVE COMMON	12	FRAME GROUND
5	SPARE	13	+12V
6	+12V	14	+12V
7	SIGNAL GROUND	15	SIGNAL GROUND
8	SIGNAL GROUND		

• AUX CONTROL Connector (15P)

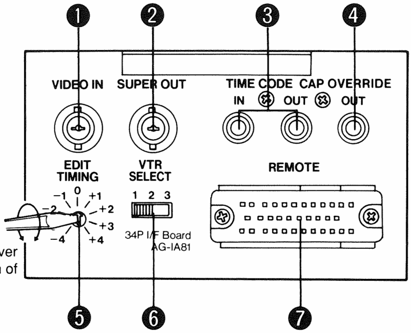

8 7 6 5 4 3 2 1
15 14 13 12 11 10 9

Pin No.	Signal	Pin No.	Signal
1	GPI 1	5	GPI 3
2	GPI 1	6	GPI 3
3	GPI 2	7~15	—
4	GPI 2		

AG-IA81 interface board (option)

The optional AG-IA81 interface board is required when using the AG-7500/AG-7500A/AG-6500.

AG-IA81 Interface Board Controls and Functions



Use a screwdriver to set the position of this switch.

Specifications

Operating ambient temperature:	41˚F to 104˚F
Operating ambient humidity:	35% to 80%
Dimensions:	4-1/16(W)×2-3/8(H)×10-15/16(D) 103×60×277 mm
Weight:	1.1 lbs (500g)

① **VIDEO IN connector (BNC)**
This is connected to the VIDEO OUT connector on the VTR. It must be connected for time code editing.

② **SUPER OUT connector (BNC)**
This is connected to the TV monitor. The time codes are superimposed onto the video signals from the VIDEO IN connector.

③ **TIME CODE IN/OUT connectors (pin jacks)**
Connect to the TC IN and OUT connectors on the VTR for time code editing.

④ **CAP OVERRIDE OUT connector (pin jack)**
Connect to the CAP OVERRIDE (CONTROL) IN connector on the VTR.

⑤ **EDIT TIMING selector switch**
Adjust if the start timing with the recorder is not aligned and it is difficult to achieve phase synchronization between the units.
Use to finely adjust the preroll time during editing in frame units.

⑥ **VTR SELECT switch**
Set to the "1" position for AG-7500/AG-7500A, or "2" position for AG-6500. "3" position is not used.

⑦ **REMOTE connector (34P)**
Connect to the REMOTE connector (34P) on the VTR.

Pin No.	Signal	Pin No.	Signal	Pin No.	Signal
1	REC SWITCH	13	—	25	FF HOLD
2	PLAY SWITCH	14	REVERSE COUNT	26	REW HOLD
3	FF SWITCH	15	CUT OUT SWITCH	27	INSERT CH 2
4	REW SWITCH	16	EDIT SWITCH	28	—
5	STOP SWITCH	17	REVERSE	29	PAUSE HOLD
6	—	18	CONTROL PULSE OUT	30	REMOTE 30
7	PAUSE SWITCH	19	REMOTE 19	31	CUT IN HOLD
8	—	20	—	32	INSERT VIDEO
9	CUT IN SWITCH	21	—	33	REMOTE 33
10	NOT SOURCE PLAY	22	INSERT CH 1	34	+12V
11	SERVO LOCK	23	REC HOLD		
12	GND	24	PLAY HOLD		

Error messages

The buzzer is sounded 3 times if an error is made in an operating procedure. Press the TOTAL button. One of the following messages appears on the player's display.

List of errors codes

Actual display:	**NO ERROR**
00-00	No error has occurred after the power has been turned on or after both the TOTAL and RESET buttons have been pressed.
Actual display:	**PLAYER CONTROL ERROR**
01-00	Only STOP among the function buttons is accepted during an editing operation.
01-01	The RESET button is not accepted in any mode except CTL.
01-02	The operation cannot be executed since the player has not been connected. The CONTROL switch on the VTR is set to LOCAL. The VTR is in the eject mode.
Actual display:	**RECORDER CONTROL ERROR**
02-00	Only STOP among the function buttons is accepted during an editing operation.
02-01	The RESET button is not accepted in any mode except CTL.
02-02	The operation cannot be executed since the recorder has not been connected. The CONTROL switch on the VTR is set to LOCAL. The VTR is in the eject mode.
Actual display:	**EDITING ENTRY ERROR**
03-00	Editing entry is incomplete.
03-01	Entry is not possible since the multi event memory is full.
03-02	No change in the mode is possible since an editing operation is in progress.
03-03	Edit points cannot be entered, revised or checked since an automatic editing operation is in progress.
03-04	Entry is not possible since the player has not been connected.
03-05	Entry is not possible since the recorder has not been connected.
03-06	This is the entry of the 4th point. Clear another point first and then enter.
03-07	The AUDIO SPLIT IN (or OUT) point has already been entered.
03-08	No change in the mode is possible since audio split editing is in progress.
03-09	The edit points have not been entered.
03-10	Select the video and audio (CH1, CH2) signals when performing audio split editing.
03-11	Entry is not possible for edit points in the fast edit mode.

List of errors codes

Actual display:	EDITING ENTRY ERROR
03-12	Events numbers range from “0000” to ”9899”.
03-13	Switch between assemble and insert editing after having turned off all the ASSEMBLE, VIDEO and AUDIO (CH1, CH2) lamps.
03-14	The IN point entry has a higher value than the OUT point entry.
Actual display:	**EDIT OPERATION ERROR**
05-00	Input is not accepted since editing is in progress.
05-01	The operation cannot be executed since the editing entry is incomplete.
05-02	The operation cannot be executed since the assigned edit point has not yet been entered.
05-03	Review is not possible since the present event and previous event have not been executed.
05-04	The operation cannot be executed since the player has not been connected.
05-05	The operation cannot be executed since the recorder has not been connected.
05-06	Fluctuations have occurred in the player’s servo during editing.
05-07	Fluctuations have occurred in the recorder’s servo during editing.
05-08	The servo does not lock for the VTR.
05-09	Control of the VTR is no longer possible during editing.

Specifications

Power requirements:	AC 120V, 50-60 Hz
Power consumption:	22W

Editing functions

• **Memory capacity:**	128 events (64 events for audio split editing)
• **VTR controls:**	EJECT, PLAY, STOP, REW, FF, JOG, SHTL (shuttle), REC (recorder side)
• **Editing controls (player/recorder):**	EDIT START, ALL STOP/EDIT STOP, PREVIEW, REVIEW, TOTAL, GO TO, EVENT
• **Edit point setting/ change:**	MARK IN, MARK OUT, EVENT, RESET, TRIM +/–, IN, OUT
• **Editing modes:**	ASSEM (assemble), V/A1/A2 (insert), AUDIO SPLIT, AUX (external/player side)

Counter display

• **Recorder/player section:**	Edit point max. ±9 hr 59 min 59 sec 29 frames (with CTL) Edit point max. +23 hr 59 min 59 sec 29 frames (with TC)

Connectors

• **RECORDER OUT connector:**	BNC × 1, YC × 1
• **AUX IN connector:**	BNC × 1, YC × 1
• **PLAYER connector:**	BNC × 1, YC × 1
• **TO I/F UNIT connector:**	15P × 1
• **Remote control connector:**	9P × 2 (RS-422A) for serial control panel 34P × 1 (option) for parallel control panel (time code input/output, monitor connector)
• **REF VIDEO IN/OUT connector:**	BNC × 2, 75 Ω ON/OFF, loop through type
• **TO KEY BOARD connector:**	15P × 1
• **AUX CONTROL connector:**	15P × 1, relay contacts × 3 (allowable voltage: 24V DC to 1V DC; allowable current: 100mA to 1mA)
• **Connectable VTRs:**	Basic system **Recorder:** AG-7750/AU-65/AU-60* **Player:** AG-7750/AU-65/AU-60*/AG-7650/AU-63 Conditional system AG-7500/AG-7500A/AG-6500 (AG-IA81 interface board required)
• **Operating ambient temperature:**	41°F to 104°F (5°C to 40°C)
• **Operating ambient humidity:**	35% to 80%
• **Dimensions:**	16-3/4(W) × 3-13/16(H) × 11-13/16(D) inches (424 × 96 × 300 mm) for I/F unit 16-3/4(W) × 3(H) × 10-7/8(D) inches (424 × 75 × 275 mm) for control panel
• **Weight:**	14.1 lbs (6.4 kg) for I/F unit 5.06 lbs (2.3 kg) for control panel

*Use of the AU-60 is confined to TC editing.
Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Memo

Panasonic

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